

Galaxy

GALAXY

Science Fiction

VOL. 39, NO. 7

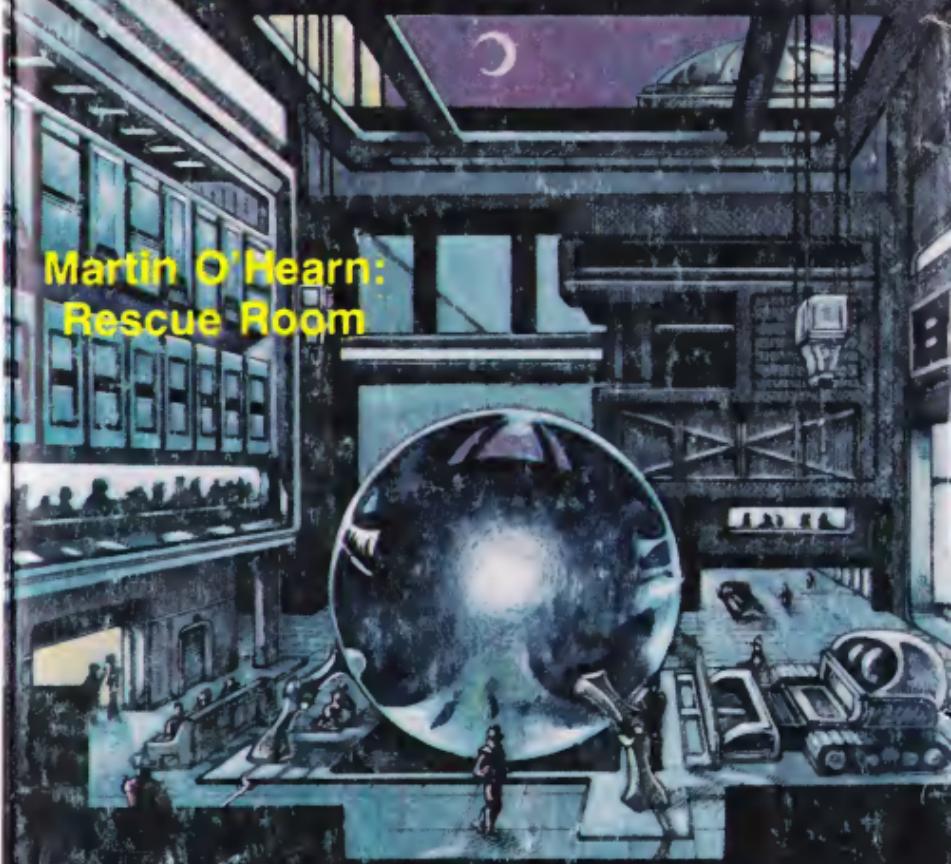
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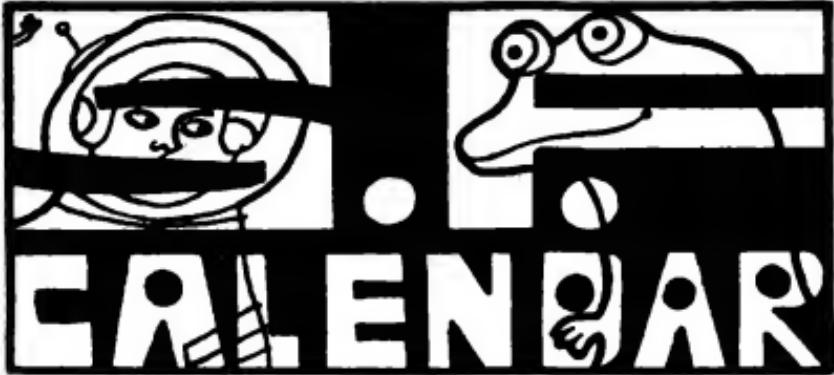
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JULY 14-16. EMPIRICON. Hotel Taft, New York City. GoH: Alfred Bester. Membership: \$5 until June 30, \$7 at the door. For info write: Susan Rothman, 35 Seacoast Terr., Brooklyn, N.Y., 11235.

AUG 30-SEPT 4. IGUANACON, 36th World Science Fiction Convention. Hotels Adams and Regency Hyatt and Convention Center, Phoenix, Ariz. Pro GoH: Harlan Ellison. Fan GoH: Bill Bowers. Toastmaster: F.M. Busby. Membership: \$20 attending, \$7 supporting. For info write: Iguanacon, P.O. Box 1072, Phoenix, Ariz. 85001.

SEPT. 15-17. FANTASY FILM CELEBRITY CON. Sheraton on the Mall, Monroeville, Pa. Forrest J. Ackerman, Frank Kelly Freas, Fred Clarke and others. For info write: Bob Michelucci, F.F.C.C., 211 Fort Pitt Blvd., Pittsburgh, Pa., 15222.

SEPT. 29-OCT. 1. PGHLANGE X, Marriott Inn, Pittsburgh, Pa. Pro GoH: Rick Sternbach. Fan GoH: Phil Foglio. Membership: \$7.50 to Sept. 15, \$10 after. For info write: Barbara

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OCT. 6-7. ROVACON 3. North Side High School, Roanoke, Va. GoH: Frank Kelly Freas. Membership: \$1.50 in advance, \$3 at door. For info write: Rovacon, P.O. Box 774, Charlottesville, Va., 24073.

NOV. 3-5. NOVACON 8. Holiday Inn, Birmingham, England. GoH: Anne McCaffrey. For info write: Novacon 8, 19 Bishop Asbury Crescent, Great Barr, Birmingham, B43 6HL, England.

DEC. 8-10. PHILCON 78. Sheraton Hotel, Philadelphia, Pa. Membership fees and GoH to be announced. For info write: Meg Phillips, 210 Londonderry Lane, Darby, Pa., 19023.

JAN. 5-7, 1979. CHATTACON 4. Sheraton Downtown, Chattanooga, Tenn. GoH: Alan Dean Foster. MC: Cliff Amos. Membership: \$7 to Dec. 18, \$9 after. For info write: CHATTACON 4, P.O. Box 21173, Chattanooga, Tenn. 37421.

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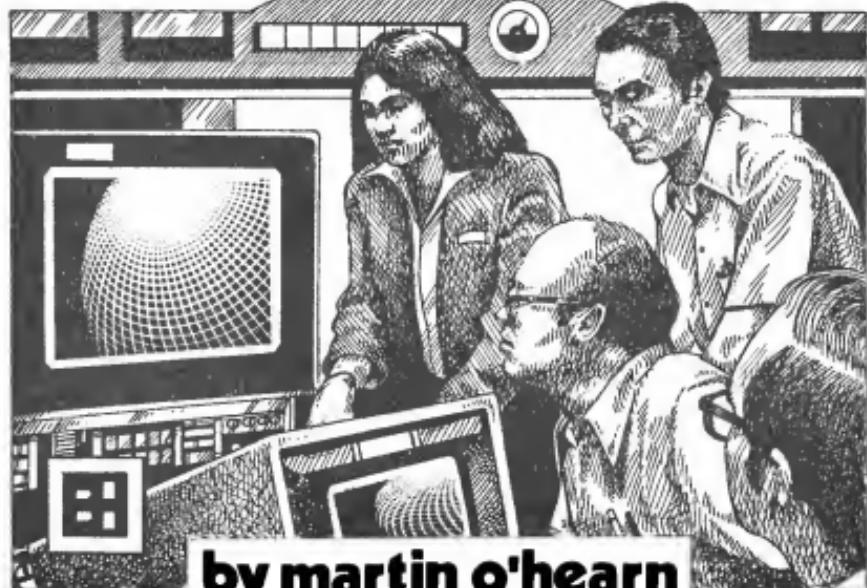
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RESCUE ROOM



by martin o'hearn

Billion-dollar research projects don't make many political friends under the best conditions. And when disaster strikes. . . .

LIKE A GRIM FORTRESS outpost of the Foreign Legion, NASA Antimatter Research Station One sweltered under the relentless sun of the Mojave Desert.

After four years Jean Pelham Ringefield, assistant director of the Fast Room project, could still shiver in awe at the terrible beckoning vastness.

Bernard Ringefield, the project director, looked at it in a more prosaic manner. It wasn't bad enough, he insisted, that a single mistake could turn the station into drifting atoms; no, the government had made that eventual error inevitable by plunking them down into the most irritating environment imaginable.

In the office of the station supervisor, Ronald Ferrier, sunlight like golden pressure-steam blasted in through the polarized window to burnish the two occupants.

"You've heard of the latest fiscal squeeze, haven't you, Jean?" asked Ferrier from his seat. "NASA is being cracked down upon: first, as a matter of standing Congressional policy; and second, as a result of

the Orbital Station disaster."

Turning from the desert panorama, Jean Pelham pushed her long, dark hair back from her eyes. "And our station being even more dangerous, we're first on the list of shutdowns. Right?"

His desk model of the heavy-duty matter-antimatter reactor sheltered Ronald Ferrier from her question. He continued offhandedly. "Senator Stoughton is coming out to look us over. I want to give him an impressive show. Your full-scale Fast Room is about to be sent out on its first piloted run, isn't it?"

"We haven't our requisition of antimatter yet. And it's certainly not a spectacular show. The other projects are much flashier."

"The 'flashy' ones are all tied up in one way or another; none is available for any sort of demonstration. The other teams will sacrifice their priority on the antimatter in this common crisis."

The young physicist shrugged, matching Ferrier's overdone casualness. "A multimillion-dollar-gobbling exhibitions isn't the best evidence of economy."

"Nevertheless, Congress must be convinced of our material progress. They'll be here on the fifteenth."

Jean's voice finally rose. "Ronald, we're not properly prepared. I've budgeted every minute of that time before the requisition date. *We are simply not ready.*"

"Doctor Pelham, you'll simply have to *be* ready. There is no other—" Ferrier's voice cracked and expired in an embarrassed peep. Squirming in the scalding sunlight, he muttered, "What can I say? Believe me, I see your point. I sympathize completely, but . . ."

Her hair fell forward again, hiding her face from him as she crossed to the desk and pretended to examine the reactor model.

"I'm sorry, Ronald. You're under more pressure than anyone in this. . . this. . . in what Bernard calls a four-walled doomsday bomb."

The supervisor dropped his gaze to regard the massive miniature. "How is Bernard doing now?" he asked softly.

"Quite well, the doctor says. Waiting to return to the project. He'll insist on coming back now."

"Under this extra stress? He'll fall right into another breakdown."

Jean's attention had returned to the desert and its sky tinted brown by the window filter. A transport rocket lolled down a final cushion of flame onto the airstrip-pad a mile distant, bearing a few more precious kilos of anti-iron from Canaveral.

"The Fast Room is his life, Ronald. He'll die if he has to stay away."

Looking up, Ferrier spied the movement of her hand. But this

time, he thought, she was brushing away more than the stray strands of hair.

* * *

A week and a half later, in the late morning of the fifteenth, Jean Pelham stood with her husband on the observation balcony of Experiment Chamber C. In the sunshine from the polarized skylight Bernard Ringefield's hospital pallor lingered yet.

"I'd better go down there," he said.

"They'll do fine, darling." Jean's grip was soft but firm on his arm.

Fifteen feet below, a tractor-lift trundled the fragile-looking Fast Room in through the chamber's huge double doors. Seven solemn technicians stood ready to take it over from the tractor crew. One young woman, unable to wait, ran to meet it; the others scrambled after her, their reserve broken, laughing with satisfaction.

To the coming delegation, Jean knew, the Room would appear crude, unfinished. To her, its starkly functional lines held their own sort of pristine beauty. It had been stripped down for the lowest mass possible. It was a round, seven-foot-wide metal-mesh platform on four stubby legs; from its center a thin column rose five feet high to terminate in a raggle-taggle sphere of cryoelectronic breadboards and thick wiring. Cables snaked down the column to a small matter-antimatter reactor. The reactor and its accompanying equipment took up half the platform.

As Jean urged Bernard back from the railing, the cheerful southwestern twang of Don Wood's voice resounded in the corridor outside. The ruddy astronaut strolled onto the balcony and leaned over dangerously far to inspect the Room.

"Guess I'll mosey down and commence flight check, Doc," he said, reaching up to clap Ringefield on the back. "By the way, the Senators are here."

"The sooner we start, the sooner we'll finish," said Jean.

Bernard grimaced. "Not soon enough for me."

She managed to halfway straighten his tie before he stalked out. After a quick observation of her crew's progress, she hurried after him.

He was waiting at the elevator. "Bernard, let's take the stairs."

"Oh. Sorry."

Jean had to half-run to keep pace with his Ichabod strides. Bernard's right hand strayed to his wedding band, compulsively twisting the slim ring.

In Bernard's office Ferrier was waiting with the three Senators—Andrew Stoughton and his gray-faced junior colleagues. The supervisor introduced them and then retreated to his administrative domain.

To her dismay, Jean saw Bernard immediately begin to head toward disaster.

"Well, gentlemen," he said, "let's get down to it, shall we? We're here to entertain you. Pick a card."

"Cut the crap," Senator Stoughton growled around his cigar.

"All right, Senator." Ringefield took a deep breath, then suddenly

sighed as if crucified. "Here, then, the prototype Fast Room." He wrenched open a cabinet and withdrew an imperfect one-foot metal spheroid.

"This weighs nine kilos, including five kilos of fuel. Equal parts of iron and anti-iron." The two silent Senators flinched, more ashen than ever. "That's right, boys, the equivalent of five tons of fissionable material."

"Where the hell is the shielding?" demanded Stoughton.

"It's only a centimeter thick. The M-A researchers will fill you in later on the new gamma shielding. It's a spinoff of our work, though."

"Mmm. What does this thing do?"

"The best explanation is a demonstration."

Ringefield set the prototype down on the desk with a flourish. The three Senators watched as closely as though they expected him to haul a rabbit from a hat.

Visible in the device's interior were the compact gray bulk of a miniature M-A reactor and a delicate, silver maze of circuitry. One of its irregular faces sported a digital-clock readout. Senator Stoughton absently shook back his sleeve and checked his watch.

"A cesium clock," said Jean. "Far more accurate than the external readout's capacity could hope to indicate."

Bernard rifled through a pack of iridescent magnetic-plastic chips that he materialized from a desk drawer, then inserted two into the globe's innards. The clock read 1019 plus some seconds. "I've programmed it to start at 1020 and to return at 1025."

Stoughton was not impressed.
"Start to do what?"

"Watch."

The green lines of the readout flickered into the new minute. Instantly and soundlessly the patched-together prototype disappeared, replaced by a perfect silvery globe that in seconds swelled to twice its original volume. Ringefield picked it up and at Jean's gentle murmuring he reluctantly handed it to Stoughton.

"It's half as massive," Jean pointed out, "or, if you like, half as heavy."

The Senator stared warily at the object he awkwardly hefted. "So what is it?"

"A little Fast Room, obviously," Bernard said.

"Now listen, Ringefield—"

"You'll see exactly what it is in a few minutes." Jean explained hastily. "We stumbled across it four years ago—"

"In a much more comfortable Research Station—"

"While we were trying to get an angle on antigravity." *Bernard be quiet!* "Our team's approach was in the forcible curving of space. We found this instead."

"Instead? But it is antigravity! You just said this thing is half as heavy." The Senator motioned with the working model.

"It's not practical antigrav," she said. "It's something more. We were rushed here as soon as we figured out what."

Bernard fidgeted and cast a disapproving eye at the burning squares of sunlight on the carpet.

Jean continued: "Only M-A can fuel it because it has to be com-

pletely self-contained. Under that condition, any other fuel is far too inefficient. It has to carry both the Fast Room and its own dead weight, and the burned-out fuel can't be jettisoned as is possible in a rocket. With the new neutron-conversion reaction there is no waste component in M-A—it's one hundred per cent converted to energy. Hydrogen fusion, by contrast, is only one per cent efficient."

The shiny ball in Senator Stoughton's hands began to shrink and grow more massive. He hurriedly replaced it on the desk. It popped out of existence; the junky little Room rolled an inch to settle on the blotter. Jean retrieved it and read the time from its clock.

"Some few seconds past 1025."

Stoughton consulted his watch. "It's only 1022 and a half!"

Bernard grinned for the first time in months. "That's what a Fast Room is, gentlemen."

* * *

The sun poured into Chamber C and struck sparks off Don Wood's carrot-red hair as he joked with the technicians.

On the wall opposite the balcony, half a football field's width distant, a huge electronic clock glowed a soft green, lazily contesting the sun's skylight invasion. It lacked five minutes of 1100.

Jean Pelham sighed to herself as Bernard leaned on the railing a few feet from her, pointedly ignoring the three members of the finance subcommittee. He was seemingly

engrossed in the last-minute preparations for the "flight."

"Colonel Wood will be in the room for an hour by its clock," she told the Senators.

By now she had completely forgotten the names of the other two men. Like Phobos and Deimos, they revolved around Stoughton's Mars, and their reaction to the tiny Room made the names Fear and Panic very appropriate. I suppose, she told herself, that's the way I looked four years ago. But the excitement has all burned off the surface now. All that's left is an occasional twitch. Her gaze was fixed upon Bernard's fingers, twisting, always twisting, the wedding band. . . .

Stoughton harrumphed.

"Oh! I'm sorry," she interrupted her reverie. "A third of the equipment you see on the platform is for recycling the air. Tanks of oxygen would not be sufficient because waste air can't be expelled. The cameras are not, unfortunately, television. Nothing—matter or energy—will pass the Fast Room wall. The cameras are simply movie cameras. And there are various biometric monitoring devices, all with recorders." She tossed her hair back. "There's a timer able to bring the Room back if for any reason Colonel Wood himself is unable to do so."

Ringefield leisurely pivoted at the edge of the group. "If you'll direct your attention to the center ring, gentlemen, the show is about to begin."

The Senators peered down into the chamber. Stoughton chewed his cigar and shot a disgruntled look at

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the unconcerned project director.

Jean pulled Bernard to one side. "What's gotten into you? These men can close us down in a day. Swallow your pride and grow up!"

"I can't help it," he said. "That damned fool rubs me the wrong way on sight."

"He's not a fool. Don't make that mistake. And if you don't care about the Fast Room, the rest of us do."

She wished she could have snatched that sentence back. He brushed off her arm and pulled away, answering the remark with the look in his eyes. *The Fast room is my life*, it said. *As much a part of it as you are. Maybe... maybe even more.*

She knew exactly how he felt.

Bernard was clutching the railing now. Jean went over to join him, one hand reaching out for his. Down below, Don Wood—in slacks, sport shirt and stocking feet—was in position, the cobwebs of the biomonitoring wires disappearing beneath his shirt and hair. He sat crosslegged on the Room's floor, one hand on the single control vernier.

"He'll be more comfortable than we are once he's cut off from earth's gravity," Jean assured the Senators.

The digits of the wall clock shimmered and shifted to form 1100. Wood twisted the control. Immediately he vanished from sight as the Fast Room wall sprang into being around him, a perfect super-reflective sphere twelve feet in diameter. The four metal legs clattered to the floor and within seconds the sphere expanded to about

sixteen feet, twice its first volume.

Squinting a bit more than necessary as he leaned into the controlled sunlight's path, Ringefield cupped a hand to his mouth.

"Carl," he called to one of the crew, "bring up one of the legs, will you?" He smiled maliciously as the two younger Senators put Stoughton and Jean between themselves and the Fast Room.

Jean quickly reassured them. "Even if Colonel Wood's power plant were to explode—and it won't—you'd be perfectly safe. The Room's wall is absolutely impenetrable. *Absolutely*. It's as though the Colonel were in another universe entirely. Even gravity, remember, can't affect him in there."

Still uneasy, the men stared at the globe being weighed and measured now by the technician crew.

Senator Stoughton's face lit up, however, as he considered the possibilities of this property of the Fast Room. "Doctor Pelham, what causes this barrier?"

"Well, by forcibly expanding the volume of a section of space-time, we cause its mass and time to contract in direct proportion. The energy needed to expand Colonel Wood and the Room to twice their original volume, and so to twice normal time-speed, happens to be the same we would need to accelerate them to eighty-seven per cent of the speed of light."

Stoughton drew a new cigar from his pocket and unwrapped it. As it ignited itself, he said, "Where length contracts to half, mass and time expand to twice. The Lorentz-Fitzgerald effect."

Ringefield's eyebrows arched as

he looked at his wife in silent acknowledgment. Exasperating as the old furnace-breather was, fool he was not.

It was then that Jean realized the mistake she had made—the mistake that might cost them the project.

In taking over the demonstration's explanations she thought she had been averting an explosion between Bernard and Stoughton. But the blast was building in Bernard's bitter silence. Get him involved enough in words, words about their brainchild, and with any luck he would become sufficiently absorbed to forego personalities.

Here was her chance. She said nothing.

Finally: "That's correct, Senator," Bernard grudgingly admitted. Three heads swung around. "In this case there is not relative motion, so the analogy breaks down; but in order to answer your question, let's hold on to the example of a spaceship."

He held out the piece of metal he had received as Jean had talked. One end of the Fast Room leg was shorn away as if by a jeweler's laser.

"Think of one end attached to that rocket and the other anchored to Earth."

"The leg would break the moment the ship took off."

"And so the barrier is formed the instant the Room begins to expand. No matter the degree, the barrier of relativity is impassable. You can't move from one plane of reference to another. The plane itself must change."

Stoughton fell silent. His colleagues, with a cobra victim's fas-

cination, watched their distorted reflection in the mirror-surfaced ball. The crew, with the aid of two tractors, was sliding a thick, padded mat beneath it.

"Then an enormous Room," spoke up the Senator, "expanding Washington just a touch, would protect the city from even antimatter bombing?"

"Theoretically, yes. Practically, no. You see. . ." A long-buried glow was creeping back into Bernard's features, his antipathy toward his audience fading as he expounded upon the applications of the Fast Room. Once he steered the subject away from Stoughton's bomb-shelter hobbyhorse, he was able to tell them of its uses in space travel, where it would make a fool-proof acceleration couch and a perfect antigravity simulator. He painted a spellbinding picture of the Room's future.

At the edge of the balcony Jean sighed again, this time in relief. *He's done it*, she thought as she watched the Senators' rapt expressions. *I think we've made it.*

The huge green digits collapsed and reformed into 1130.

"The short time it takes the Room to expand and then to contract makes our wait a trifle more than half an hour," said Bernard, tossing and catching the metal leg over and over. They waited.

1131.

The shiny sixteen-foot globe sat solid and inscrutable on the floor of Chamber C. Senator Stoughton compared the wall clock and his watch.

"Something's gone wrong," Bernard said suddenly, his voice a

strangled monotone. The leg fell from his hand with a sharp clatter.

* * *

Three long minutes had passed. One of Stoughton's satellites finally spoke.

"Can't you just wait for the fuel to run out?"

"If that analogy holds this far," the senior Senator answered, tossing away the stub of his cigar, "and this is like acceleration, then it doesn't work that way. You need energy to get it there, and energy to get it back, but to keep it at a constant 'speed,' you don't need a damned thing. Right, Ringefield?"

Bernard nodded absently, working at his ring more furiously than ever. "It will stay there until the end of time."

The door burst open and Ronald Ferrier ran in, panting heavily. "What are we going to *do*?" he wailed, wringing his hands. "How much time have we?"

"The rebreathing apparatus is good for twenty hours at the most," said Jean. "That gives us until 2100 out here." She shook her head, then brushed away the hair that fell across her face. "Of course, if it's not the Fast Room generator but the M-A reactor that's gone wrong, Don may already be dead."

"He's been exploded in there!" cried the other heretofore mute Senator.

Too quietly, unnaturally calmly, Ringefield said, "If he has, I know where the blame lies."

"Bernie, what do you mean?" Ferrier shrank back.

And the Fast Room director fi-

nally exploded. "It's this circus we're throwing! We're not conducting a scientific experiment here. We're slapping together a toy for these Yahoos! Why should it surprise us that something's gone wrong?"

Stoughton's voice was as calm as Ringefield's a moment earlier but he was chewing viciously on a cigar no longer there. "I don't remember forcing you into this."

Flinching at the accuracy of the barb, Jean turned hastily to Ferrier. "There *is* something we can do, Ronald. We can send someone after him."

Beside her, "Of course." Bernard snapped his fingers. "Another Fast Room!"

"Exactly! If two Rooms expand to the same degree, they'll be on the same plane of reference, like two speeding spaceships motionless relative to one another. There will be no barrier between them."

The two physicists ran out, past the elevator and into the stairway. Seconds later the supervisor and the Senators saw them rush onto the floor below, instantly surrounded by their anxious team. Ferrier fished out a limp handkerchief and mopped his dripping brow, muttering, "2100." Stoughton reached for another cigar.

Then Ringefield broke from the group and, hands on hips, planted himself beneath the balcony's edge. "Ferrier, get me eighty kilos of anti-iron, fast!"

"But we used every gram in the station for this demonstration!"

"I don't care if you borrow it from the Urals. Get it!"

Three hours later a spindly device

was taking shape next to the featureless sphere in Chamber C, a device even less eye-catching than the hidden one. The group of scientists was feverishly improvising the construct out of material from the earlier small automated Fast Rooms; even the one-foot prototype had been scavenged from Ringefield's office and cannibalized. A scant four kilograms of anti-iron, Ferrier's claim to the contrary, had been collected from the station's other projects and now waited with eighty kilos of iron in the loading chamber six corridors away.

Ringefield rang Ferrier on the Chamber intercom. The supervisor tried to talk first but Ringefield jumped him. "Where's the rest of the anti-iron?"

"Thirteen kilograms is on its way from the Yukon Station but—"

"But what?"

"But nobody else," Ferrier gulped, "has been willing to part with any."

"Willing to part with any"? Didn't you tell them what kind of an emergency we've got here?"

"Of course I did." The station chief was close to sobbing. "But they're not NASA. It takes days to authorize transfer."

"Authorize?" Ringefield slammed a white-knuckled fist against the wall and bolted from Chamber C.

Heads turned to see him disappear, then the team returned to its tasks. Jean took a step away from the new Room, toward the door, but at that moment one of her people came in with an important subassembly. It was not until a good forty minutes later that she

could break away and follow Bernard.

He was sitting in his office, the phone receiver in his hand, the screen on the desk blank. His breath came in shudders.

"Nothing," he said hollowly. "Ronald's right. Oh, antimatter security is tight as only ten-thousand-dollar-a-kilo security can be." He did not move but just stared out the window at the shimmering buttes on the horizon.

"Would you like me to take over, Bernard?"

He hesitated; then, shaking his head, he attacked the dial buttons. That call was fruitless, as was the next, and the next.

For the one after that he finagled a satellite link to Antarctica. "Harry? Bernard Ringefield. We've got an emergency here." He described the plight of the astronaut marooned mere inches from humanity.

In the screen they could see the low midnight sun glowing like lambent ice over the Antarctic ore fields beyond Harry Carvin's window. Carvin sat alone, gaunt and bearded, in his controlroom office; outside, robot mining equipment made its mindless way back and forth, back and forth, over the steel-hard brown earth. The M-A powered ore-smelter building loomed above like the play-blocks of a somber child giant.

"Of course you can have all the anti-iron I can scrounge up. Let me see." He studied a smudged invoice book for half a minute. "I can give you a bit less than fifty kilograms, Bern."

In the Mojave, Bernard and Jean

let out their breath in unison. "Thanks, Harry." Bernard pressed the stud on his watch. 1525. "How soon can you get it here?"

"We've got nothing very new nearby. Three, four hours. The loading will take up a good chunk of that."

"Ouch. Well, I'll get off the line so you can get started. Thanks again, Harry."

Harry Carvin waved a deprecatory hand in his office five hundred miles from the nearest human being. "Sure, Bern."

Bernard buzzed Ferrier only to find the supervisor still shooting zero. "Keep trying, Ronald. We're still thirteen kilos short."

As he tried to leap from his seat, Jean gently restrained him. "Why don't you rest in here for a few minutes, dear?"

He wiped the perspiration from his forehead and laughed weakly. "Maybe I should. . . I can feel my heart going like a machine-gun. No," and he tore away from her, "I'll rest after Don is back, not before."

Finally the rescue Room stood completed. Aside from a very limited chemical rebreather, it contained no equipment beyond Fast Room generator and M-A reactor. Jean studied its makeshift lines and recalled both Bernard's outburst today and her own a week and a half earlier.

Not ready. And if the reason for the first Room's breakdown is in the pushing forward of the flight date, then what can we expect with this rush job?

If only she had not given in to Ronald. . . .

On the balcony above, she saw Stoughton talking with the station supervisor. Ferrier looked as though the Senator had just kicked him in the gut.

Fiscal squeeze be damned!

The connection she was checking blurred. For a moment Don Wood's predicament slipped out of her mind completely, leaving only her own loss as she wiped away the tear. The Fast Room, her Fast Room, was dead.

She blinked. . . and there was the silent sphere before her. Don's laugh rang in her memory and she returned, dry-eyed and capable, to the wiring. One phrase in Bernard's words began to carousel around the fading laugh.

Thirteen kilos.

* * *

1850.

A mile from the station the workhorse jet from Antarctica taxied to a smooth halt. Red-jacketed handling crews, on tense standby for hours, were ready at the night-lit airstrip; unloading the anti-iron took the specialized team only a fraction of the time the operation had taken Harry Carvin. To transfer it from smelting plant to jet he had had to singlehandedly supervise a gang of imbecilic robot equipment whose designers had never imagined such a task for them.

The magnetic vacuum vault was swiftly but carefully swung out from the plane's bay doors to a waiting tractor. The tractor lumbered back to the station in the frigid moonlight.

The rescue Room, and the vaults from the Yukon and from the station's own supply, waited in the loading chamber. The last magvac vault was put in with them and the chamber sealed. The Ringefields stood in the control room, separated from the ravenous potential of the anti-matter only by an unreassuring wall of inches-thick steel. Calm M-A handlers lounged at remote-control panels, television screens laying open to them every inch of the loading chamber's interior.

Bernard's chest was heaving again and his fingers were racing compulsively over the keyboard of a slim electronic calculator.

"Go ahead," he told the loading director. "We're not getting any more. Load it." He scowled at the calculator, cleared it and stabbed away again at the keyboard.

Air exhausted from the chamber. Spidery waldo arms opened the first vault. Then invisible magnetic beams eased a compact cloud of anti-iron dust out of the vault's grasp and into the light. With practised speed the handlers guided the antimatter toward the rescue Room. Occasionally the anti-iron sparkled as, in the imperfect earthbound vacuum, infinitesimal annihilations took place on the fringes of the cloud.

The second vault was as swiftly unloaded. Then, on the third operation, as the formless mass of antimetal edged out of the vault, one of the waldos trembled and began to slowly swing down into its path. The loading director caught it immediately, bounding over to one of the handlers and twisting a lock on the man's panel.

When Jean finally tore her gaze



away from the retreating mechanical arm, Bernard had disappeared from her side. She found him in their quarters. She almost missed him, slumped down as he was in a chair before the window, the lights out. But when she turned in the doorway to continue her search, he spoke her name.

"It's no use," he said as she walked around in front of him. "Don must certainly be dead in there. We would only be sending a second man to his death." He buried his face in his hands. "As dead as our Fast Room!"

Reaching out for him, Jean murmured, "No, Bernard. We can't give up on him—or on the project." The second, the false hope, caught in her throat as she felt the wracking sobs chase each other through his frame. "He must still be alive. He must! We could never live with ourselves if we gave up now."

His voice artificially steady, Bernard spoke as though miles away. "We're twenty-six kilos short of fuel. I calculated a hundred and sixty by my weight. We would need somebody twenty kilos lighter."

Out in the arcing desert sky new stars twinkled into existence.

"I'm twenty-kilos lighter. And I know the Fast Room better than anyone."

Bernard was silent, shivering in her arms. Then: "It's a four-meter sphere with no exit."

"I'll control myself. I'll have to."

A full minute passed. "Yes, I guess you'll have to. I'm sorry, Jean." In the moonlight his eyes glistened above his pallid cheeks

like points of deep-sea phosphorescence.

Straightening up, she asked, "Shall I call one of the doctors?"

"No, I'll be all right." But they both knew that he would never be all right again.

* * *

The rescue Room squatted close to the stranded Fast Room in Chamber C. On the wall green numerals glowed: 1940. Don Wood had been in the Fast Room for exactly seventeen hours and twenty minutes. His would-be rescuers had, at the outside, an hour and twenty minutes in which to get him out.

As two tractor-lifts rumbled into place facing each other with the two Rooms in line between them, Jean Pelham shrugged out of her lab coat and kicked off her shoes.

God, but I'm scared!

Pulling back her hair and winding a rubber band around it, she said, "Let's get under way," and stepped resolutely aboard the rescue Room.

On the balcony Andrew Stoughton stood with Ronald Ferrier, the other two Senators having long since departed.

"Ringefield said he needed a hundred and sixty kilos of fuel—eighty iron, eighty anti-iron. I did some figuring; that isn't nearly enough." He watched Jean and her crew talking below and then nodded to himself about another subject, one entirely apart from fuel figures.

Ferrier weakly shook his head. "When the two Rooms 'dock,' they'll salvage the unused hundred and fifty kilos in the first Room."

"Unless Wood's M-A exploded."

Stoughton looked even more thoughtful now.

"If Doctor Pelham doesn't return, we'll at least know not to send a third Room." Ferrier sighed and groped for his handkerchief. "Even if a third Room happened to materialize out of thin air. Senator, won't you reconsider—"

Neither of them noticed Bernard Ringefield step silently onto the balcony behind them as Ferrier began listlessly expostulating with an unhearing Stoughton.

The rescue Room vanished behind its own wall, legs clanging to the floor. On the wall of the Chamber softly shone the numbers 1947.

* * *

As the M-A reactor cut in, Jean found herself shut into a dazzling cocoon—and instantly weightless.

If her conscious mind had known what to expect, not so her viscera. The pit of her stomach flipped over and she clutched at the sides of the control panel. Her feet flew away from the mesh platform as muscles involuntarily jerked.

In her unconscious surprise she was able to ignore, for the moment, the pressing confines of the Room, and within a few minutes she had accustomed herself enough to the novel sensation to return her attention to the verniers, trying to disregard the fact that they were the only part of the platform with which any portion of her body was in contact. The harsh light from the single bulb atop the panel—she had snatched it from Ronald Ferrier's office—shot back undiminished from every point

on the wall. If only they had remembered a lampshade!

Where Don Wood's Fast Room control consisted of a triple-throw switch, a fuel gauge readout and one vernier dial, Jean's contained two extra dials, giving her a finer control over fuel flow and thus expansion. It would still be seat-of-the-pants flying.

Quickly she brought the Room to nearly twice-speed with the "coarse" dial. The readout showed that she had used the energy that would have accelerated her to almost eighty-five per cent of the speed of light.

Even as simple a matter as the spinning of a dial was immensely complicated by the lack of gravity. But now that she had reached the first stage and was waiting for the tractors to move, her confidence—even her enjoyment of zero-G—was increasing steadily.

If she concentrated on the panel, the mirror qualities of the wall made the Room seem gigantic out of the corner of her eye; and now that expansion had stopped, the tractors should be gently pressing the two Rooms together. One hand reached for the second dial as the other held on to one panel. Slowly she increased "speed." Slowly, slowly . . .

The Rooms fell together as their degree of expansion coincided. Just at the edge of her vision a small, dark circle appeared in the wall. Don's M-A had not exploded! She slammed the vernier leftward.

The opening between the two Rooms disappeared. Too fast now! But the circle that had outlined the hole remained. At that point each

sphere was flattened, the barrier restored instantaneously as their convex edges overlapped.

The generator began to hum, then to scream. Up and up the registers of tone and volume the shriek sped, vanishing into the ultrasonic. Only a perfect sphere could contend with the generator's space-twisting effect, Jean realized. No outside force could give the wall that dangerous flaw—except under the circumstances she had just momentarily created.

The tractors! She screamed silently, her hands uselessly clamped to her ears as her bones hummed. *Back off! Back off!*

* * *

Don Wood's matter-antimatter had not exploded...although for a moment he thought it had. Without warning his twelve-foot-diameter world had gone black.

The darkness was absolute. Within seconds, however, phantom shapes of green and violet began to appear, resembling a dim, grainy color negative. The after-image of the platform dissolved into random dots, curves and angles as his optic nerves overcompensated for the utter lack of stimuli.

His universe was no longer twelve feet in breadth. It was endless and he was falling through it at a speed unimaginable. He had left the tiny platform at the other end of the universe and it fell light-years further behind with every second.

Now he did not know where his arms and legs were. They too fell behind like sable comets, unseeable in the twinkling, lightless void.

Then his arm brushed against something and he grasped the Room's thin column. His legs touched the mesh, or was that the paraphernalia upon it? He closed his eyes and although the nonexistent view remained unchanged, it now made conditional sense to the innermost, primitive sections of his mind.

Don Wood took a deep breath and tried to laugh at his unprofessional moment of panic. The lights went out, that's all. Must be a loose connection.

The astronaut did not completely understand how the Fast Room expanded space; Jean Pelham had explained it to him once in the hectic days of the past week but he had lost her toward the end. "Well, at least you understand more of it than Ronald Ferrier does after four years," she had said, promising him a full briefing after the demonstration. Unfamiliar as he was with its manner of operation, he nevertheless knew the physical layout of the Room's components like he knew the back of the moon.

He unclipped the sides of the control panel and to keep them out of trouble in zero-G, he wedged them between the controls and the reactor. Then he reached inside and felt for the rear of the glow-plate casing. It was the work of moments to follow the wires by feel from glow-plate socket to reactor transformer, assuring himself of the integrity of the connections. He let go and, drifting in the now-unfrightening nothingness, he scratched at his head until his fingers caught in the biometering wires.

A gentle susurru rumbled in his

ears like a distant ocean lapping at forgotten shores. A calm, insistent beat swelled and subsided in continuous counterpoint. It was his bloodstream, the beating of his heart.

Wait a minute! Where was the whirring of the cameras? Sightless in the abysmal gloom, they were silent as well.

If the light was out. . . if the cameras had stopped. . . .

He coughed.

The atmosphere rebreather.

Again Wood forced the screaming terrors back into the closets of his brain. The air had not suddenly gone sour; his unconscious was over-reacting again. But in minutes the air would indeed begin to get noticeably bad.

He forced himself to think calmly and logically. It was obviously past time to abort the flight. But. . . hold on. The transformer built into the reactor was no longer giving out electricity. Even if the reactor proper was still functioning—the Fast Room generator used not electricity but gamma radiation—the generator *controls* did use the conventional juice. He groaned. The generator's actual mechanism was as effectively isolated from him as he was from Chamber C.

Wait another minute! Electricity powered the magnets that held the M-A. If he were still in one piece, the magnets must still be operating.

The magnet emergency reserve batteries.

The air was becoming foul now. Weightless, he fumbled, sightlessly but by no means blindly, with the wiring. The air was growing warmer as well with the passing

minutes; the rebreather incorporated a cooling system that had fed his own radiant heat into the transformer.

There!

Any change in the air was not observable. He continued working in the stifling dark. Finally the glowplate atop the control panel blazed forth again.

And the air was beginning to get better.

Hovering between wall and platform, he peered at the clock on the panel. Powered by atomic breakdown, it had continued working unseen until restored electrical power from the batteries enabled its readout to function again.

1203.

The batteries had been charging until the moment the transformer failed. Safety back-up that they were, they would hold out for days.

The rebreather would last maybe nineteen more hours. Nineteen hours in which to perform a miracle of rewiring.

The equipment was situated in this order: controls, transformer, batteries, rebreather. The rebreather wires rerouted from transformer to batteries floated free, under no strain. The single wire from the light and the clock on the panel was now taut, however; the control multi-cable itself was *already* tight.

The biometering wires, spider-web-fine, were far too delicate for the heavy job. He had his work laid out for him, Don Wood reflected, as he reached, toolless, for the armored camera cables.

* * *

A huge mirror-surfaced ball brooded in a place that was almost, but not quite, the quadrangle at MIT. Slowly it began rolling toward the river. Jean, sharing a lunch on the lawn with Ronald Ferrier, said to him, "The Fast Room is his life. He'll die if he loses it." The sphere caught up with the fleeing Bernard and crushed him flat.

Eight years old, Jean tugged frantically at the jammed knob of an ancient door. Paint-cracked, cobwebbed walls closed in as the abandoned house creaked with the squeals of its rats.

The walls began to brighten, to flow into quicksilver.

She was awake.

Don't think about it don't think about it don't think what's the time what's the time let's see 2136 how much does that leave how much does that—

Too late.

There was no way that Don's air could last beyond 2100. Silently his corpse joined the pictures in her overwrought imagination. She had failed.

And for her own return she would have to grave-rob the dead man's M-A.

She was verging on the brink now as childhood fear and adult terror gibbered at her heel. One small part of her mind clawed about for stability and pounced upon the Room controls.

The make-do fuel-used indicator advanced.

The second vernier was still supplying a minuscule trickle of energy to the generator.

Kicking out against the wall, she lunged for the control and painfully

careened about like a billiard shot in three dimensions. The idea popped into her head that if the platform and air were not in there, she would bounce off the absolutely reflective wall forever. *There's the detached scientist making her reappearance*, Jean thought, reaching for the column as she slammed against it. She hauled herself to the vernier and snapped it to zero.

The horrors retreated just a bit.

The wall, she saw, was an unblemished sphere again; the near-fatal flaw was gone. She had to return to the point where the distortion had happened and the only way to calculate her present incorrect "speed" was to judge the amount of M-A used. In here she was subjectively at normal time-speed no matter what, and so were any instruments. . . .

Jean gasped. *Outside it wasn't yet 2100*. She had half an hour more by her watch! One long, shuddering breath. . . and she was back in control.

She pushed away the image of Don. *There was still a chance!* The memory of that long-ago night in a small, locked room she shunted back into the shadows. And the dream was fading already.

Bernard. . . .

With one final shiver, Jean flipped over the triple-throw switch and began again with the second dial; she stopped when her calculations warned of the approaching danger zone.

What must they be thinking outside as they watched the globe slowly and inexorably swell beyond the correct volume in the last three-quarters of an hour? Carl must

have realized the danger and ordered the tractors to separate the Rooms. Now he must notice that she had regained control and order them in again. *He must!*

With the third—the "fine"—vernier, she fed the barest possible amount of energy to the generator. As slowly as the dial would allow she crept up on the marooned Room. Gently, with a touch like the kiss of dawning sunlight, she kept the circuit just closed. Minutes crawled by.

Above her head a small circle appeared in the curved wall. She slammed the vernier off. The opening enlarged with the speed of two elephantine tractors laboring toward each other a universe away.

"Don!"

Jean coughed as bad air wafted in from the other Fast Room. She

aimed herself at the opening which had stopped growing at a dimension of three feet across, and sprang.

Grabbing the edge of the opening, she stopped short of smashing into the bottom of the other Room's mesh floor.

"Jean . . ." the floating astronaut grasped as she pushed the platform to one side, ducking as the rim swept past the opening. Sweat gushed down his gray face and his breathing was noisily forced. The young physicist piloted him into the rescue Room and toward the re-breather.

"As soon as I salvage your reactor," she told him, brandishing wrench and screwdriver that were clipped to her platform's floor, "we'll be getting the hell out of here!"

She had been in time to save Don



from the Fast Room's clutches. What about Bernard? What could save him now?

* * *

One of the two shining globes shrank and disappeared. In its place the platform hung suspended upside-down and at a slant ten feet above the padding. Jean and Don, curled into balls, fell into the mat as magnetic beams held the rescue Room quivering above them.

Hands reached for the pale astronaut and as the men and women of the crew started to cheer, the Station doctors bundled him into a stretcher and carted him away. The rescue Room slowly sank to the mat.

Jean was stepping into her shoes when a gruff voice behind her said feelingly, "Thank God." She whirled to see Senator Stoughton and Ronald Ferrier approaching.

"I am impressed, Doctor Pelham," the Senator continued.

But almost too low to be heard, Ferrier confirmed her suspicions. "Jean, the Senator is closing us down."

Stoughton blew a cottony cloud of smoke. "Closing down the Station, yes. We're in a fiscal squeeze this year." His committee's vote back in Washington was a foregone conclusion. "But I think certain projects do deserve to remain functional elsewhere. They show promise."

"The Fast Room?"

"I can see the uses of an impervious barrier. There would have to be a shift in personnel though. . . ."

Jean stared past the Senator. Above them, on the balcony, Bernard stood alone. In the shadow she could not read his expression.

Their brainchild was not dead yet.

"I would very strongly recommend your appointment as director. I've seen your record—and I've learned a lot more today. Without you—no project."

Ferrier, still absorbed in the loss of his Station, mumbled, "Bernard needs the rest, Jean. Like me. . . ."

She remembered sharing a lunch on the grass with Ronald and saying something to him and watching the juggernaut beyond.

Can you understand, Bernard? I have to save you from it. But I have to keep it alive for you.

And for me.

"Yes, Senator. I would be willing."

Above, Bernard slowly turned and walked away. His wedding ring had finally slipped off under the constant twisting. Thoughtfully he shoved it into his pocket.

Stoughton took Jean by the arm and led her out after Ferrier and the crew. At the door she stopped to flick off the lights but did not look back.

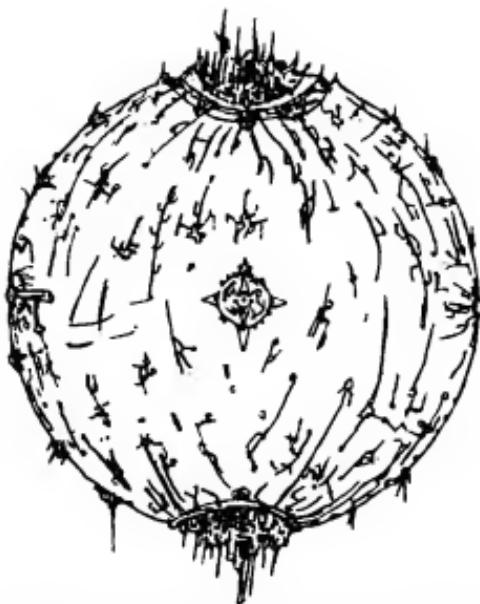
In the balcony doorway Bernard Ringefield did look back, at the Fast Room twinkling in the moonlight and the rescue Room overturned beside it.

In a cracked whisper he murmured, "Thank you, Jean."

The green digital numbers softly flickered and changed. . . . forging steadily ahead toward midnight and the new day.



Empyrean Challenge



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the
breath
of the
lily

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A lonely story of a lonely man on a lonely world

THE WIND CAME HARD off the desert, crashing into the cliff face beneath him and then swirling away, losing itself in the rocks. It was a dry wind, and ten years of it had turned his skin to leather and his deep black hair to a peppery gray. It had also done things to his soul.

Standing alone on the ridge, facing the red-orange wasteland, Derek Carson was the image of every other man who had ever searched in the desert for something he could not really expect to find. Derek Carson's desert, however, encompassed the world and he was the only man from earth to ever live on its sands.

He turned slowly up the trail toward the hogan, his step less lively than it had been during his first few years here. Time had also taken its toll on Frank. The dog was in the shade of their domelike plastic shelter tent and when it saw Carson approach, it raised its head and swirled eddies in the dust with its wiry tail.

"How was your day?" Carson asked the dog. "Anyone drop by?"

Frank, in his eternal good humor, rolled out his tongue and thumped his tail harder. Age had clouded the

animal's eyes and stiffened his bones, making it clear that he was not long for this world or any other, but for the time being at least, he was good company for the man. Carson gave him an affectionate scratch behind the ears before continuing on into the hogan.

The routine at the end of the day was well-established. He would go first to the revitalizer and pour in a packet of crystals, routinely, without bothering to read the label on the vial. Then, while waiting for them to recycle, he would review his notes for the day. Once the evening stew had emerged from the bowl at the base of the revitalizer, he would settle down in front of the transcriber and recite his evening report between mouthfuls.

"Activate," he told the machine. "Day three thousand, six hundred eleven. Discovered a slow leak in the water tank and repaired it. Estimated loss less than five liters; it will not seriously restrict supply prior to replenishing by supply ship.

"Continued investigation of presence of free oxygen in atmosphere and have made no further progress in explaining it. Outstations no longer seem to indicate variance in oxygen levels between readings, and earlier recordings may have been in error."

Frank padded through the door and went directly over to him, placing his head in Carson's lap and staring up at him with the most sorrowful look his clouding eyes could manage. Carson fed the dog some of the meat from the stew.

"Tomorrow I will travel to the sulphur springs in the thirty-eighth sector, first quadrant, to re-examine

the possibility of chemical breakdown occurring there. Endlog.

"Personal log, code Getback, lock in, authorization only. Today again broke universal law by relieving myself on the north ridge. Perhaps one day the ancestors of my released bacteria will evolve to populate this godforsaken rock."

He looked down at the dog and scratched the matted fur behind an upraised ear.

"Then I'll have someone else around to talk to. No offense intended, Frank."

The dog looked at him questioningly.

* * *

"Frank?"

He stepped outside the hogan and into the searing heat of the mid-day sun. The wind danced about him, sucking up tiny dust devils and smashing them against the rocks.

"Frank?"

The dog had left sometime during the night and gone off into the hills. He had not done that in almost a year, and it had been three years since the animal had been gone for more than a few hours; but when he was younger, the first few years on the planet, he would be gone for a week at a time, searching for something the lifeless planet would always be unable to offer him.

Carson called once more and then headed for the ATV that would take him on his day's journey. He was forced to keep the tractor half a mile from the hogan since the shelter was nestled in a field of boulders near the cliff face. The boulders had been deposited by a vol-

canic cataclysm millenia before and had formed a maze that was as annoying to Carson as it was complicated. Carson had elected to live among the rocks, though, so that he would have an unrestricted view of the desert floor from the top of the cliff. The first supply ship in ten years would land out there on the desert, probably within the month.

The wind danced around him as he emerged from the boulders and strode toward the tractor. The glaring sun reflected sharply off the cab and he was forced to squint and look away from it as he approached.

His bones creaked in protest as he pulled himself up the ladder to the cab and strapped himself in. The turbine beneath him activated with a gentle purr at his oral command and he slid the shift into gear. With a mechanical groan the ATV lurched forward—and he heard a cry of bewildered pain.

Carson hit the brake and an instant later was on his knees in the sand beneath the vehicle.

The single wheel at the front of the tractor had ridden completely over the dog, and Frank was looking up at him in confused terror, fighting for breath that would no longer come.

"Frank, please, I'm sorry. Understand that, please . . . I didn't mean . . ."

He reached forward gingerly and touched Frank's side. Without warning, the dog jerked forward spasmodically and raked its worn teeth across its master's hand. Carson pulled his hand back quickly, clutching the wound. Frank, exhausted now, fell back on his side

in the shadow of the tractor.

"Frank, I . . ." Carson found apologies and neglected kindesses forcing their way uselessly into his throat. He leaned forward again, more cautious this time, and scratched Frank between the ears. Something red began to bubble up from behind the dog's teeth.

"Frank, you're . . . all they left me here. If I . . . yelled at you or seemed too preoccupied to care, it was my own frustration showing. I tried to be as good to you as I could. You understand, don't you?"

Frank stared at him, tongue out, panting.

"Look, I'll get some water for you. From the tractor. Hold on just a minute longer. I'll be right back."

He climbed into the cab, drew the canteen from under the seat and returned, but he was too late. The dog was dead.

* * *

The sand of the secret floor had been baked hard by a million years of incessant sun, and it fought the blade of his shovel. He had worked on the grave for nearly an hour and still it reached only a few feet down, a mere scratch in the wasteland.

Carson sat with his feet in the half-finished grave and looked at the body of his friend. If this had been the earth, there would be flies buzzing around it now. He wouldn't have been able to stand that.

Frank had wandered off in search of cool shade and had found it under the tractor, where he had fallen asleep. He had been an old dog, nearing his time, but knowing that

did not help. Carson had run over the only dog on the planet with the only vehicle.

"You damned fool." He said the words to himself and to the dog, simultaneously. They echoed out across the stillness and died somewhere in the desert.

He raised his head sharply, listening.

There was no wind. For the first time in ten years the air was still. Carson stood up, suddenly frightened, the silence screaming at him.

"The wind!" he shouted aloud. "Where is the wind?"

It was, impossibly, gone. He turned and in his confusion he nearly slipped into the grave. Catching himself, he noticed a tiny flicker of light in the broken soil beneath him. He hesitated, fixing his eyes on it.

There was something there, a tiny glow of light. He climbed into the grave and reached for it.

The glow came from the smooth edge of an object still half-hidden in the red-orange soil—an object as smooth as glass. He worked at the dirt around it, scraping with his fingertips, prying, twisting, clawing, until he had broken the thing free. Then he held it up into the light of the alien sun.

It was a statue.

On a world where no man had ever lived!

It was a beautifully carved statue, shaped from material that looked like glass and felt like metal; its color was a pale blue, and it seemed to glow luminously from its crystal depths; it had been carved by a master and, most amazing of

all, it was *human*.

It was the figure of a woman of earth, the most beautiful woman he had ever seen. What was she doing here, buried in the sand of a planet where she could never have lived?

The answer was obvious, he decided, running his hands gently over the smooth form. He had lost his only friend—and now the planet had provided another. A goddess, at that. Weeping in gratitude, he pressed the statue against his weathered cheek; and again he was shocked. He held the figurine to his nose and sniffed curiously.

There was no mistaking it. The statue gave off an odor, but . . . what was it? Perfume? As part of its art? Perhaps. The scent was so faint and subtle that he could barely notice it; yet he was sure it was present. It was a warm, familiar smell, a memory of a night long ago and a distant garden where he had sat with . . . her. He remembered the soft, gentle smell of her and how, when he had asked, she had told him the name of her perfume. That name had stayed with him, as had a million other bits of trivia concerning her. The perfume had been called *The Breath of the Lily*.

He held the statue at arm's length and stared at it. No, there was no resemblance. But still . . .

"I'm going to call you Dorothy," he whispered.

He placed the figure upright on its small base, near the grave, and looked at it often as he finished his chore. Then, when Frank was properly buried, he took it back to the hogan, whistling on the way.

And still there was no wind.

* * *

Derek Carson poured a vial of crystals into the revitalizer and there was a faint buzz as the pulses began to reconstitute it. While he was waiting, he turned and looked at the statue again.

He had placed her on the top shelf of the storage rack. There was plenty of room for her there since she was only six inches tall. He had turned her so as to face the room—and so that he could see her and talk with her.

"You know, you're going to create a hell of a mess for my colleagues back home," he told her. "They have this planet all classified. Nice and neat, the way they like things. Never any life here, not much hope of there being any. That's why they sent me here—but we don't have to go into that."

"But now you're really going to botch things up for the boys. They're going to want to know who made you, and why. They're going to analyze you, categorize you, bisect you and trisect you, to find out your secrets. If they can . . . if I tell them."

The revitalizer beeped and dropped his evening stew out the slot in the bottom. He picked it up and tasted the first few scorching mouthfuls, staring at her thoughtfully.

"At least you don't ask for any," he said, and was immediately sorry he had said it: It brought back the other memory, the more recent one, that he regretted. He looked around for something to change the subject with, sighted the radio and pointed to it.

"See the little bulb on top of that?" he asked the statue. "That'll blink red in a week or two as the supply ship homes in on us and starts making its final descent. It'll give us about a day's notice. They'll be bringing all kinds of things. Food. Holotapes. Clothing. Water. But do you know what else, the most important thing of all? There'll be people there. People to talk to. I haven't heard another voice, outside of the holotapes, for six years, and then it was a normal-frequency beam from Lincolnsted. A voice six years old, wanting me to relay word down the line that King Rebutdon had died and that Warslas was accepting the throne. I sent it on but I don't suppose anyone is close enough to reply for four or five years yet."

He chewed the last morsel of the stew and set the emptied bowl on the disposal plate. The activator whistled its three-second warning and then the bowl was gone.

"The men on that ship will want to know what I've found here, Dorothy. Not much, I'm afraid, until now. I still can't tell them why there's enough free oxygen in the air, and enough humidity from somewhere, to make it possible for me to exist. I can't tell them anything, but unless I have something to offer them, they might not want to take me home yet."

He walked over and picked her off the shelf. *The Breath of the Lily* drifted past his nostrils. He studied her, rubbing his thumb gently along the lines of her naked body.

"So should I tell them about you? Do they deserve to know? Maybe. First, though, we're going

to have to find out what a nice lady like you is doing in a place like this."

He chewed his lower lip for a moment, staring at her, then replaced her on the shelf. Walking back to the cot, undressing and climbing into bed, he was once again an old man who had been isolated on a dead world for too long. But just before he drifted off to sleep, he looked at her once more—gleaming luminously from her perch—and some of the boy within him shone through.

* * *

The wind.

He sat up straight on the bed.

"Dorothy, it's back. The wind."

Above him, beside him, all around him the tent was alive with the rustle and whisper of the wind. From far beyond, from the hills flanking the desert, he could hear the lonely cry of air forcing its way to uppermost peaks and pinnacles.

"Dorothy, can you hear it? The wind came back!"

He stood, excited, and switched on the light.

She was gone. The top shelf of the supply rack stood empty.

"Dorothy?"

He stepped forward, confusion dancing through his mind. He touched the shelf, ran his hand along it, seeing but refusing to believe.

"Dorothy . . . you. . . ."

He spun around, searching the floor, searching the lower shelves. Each moment pressed on him until, frantic, he was ripping supplies from their places and scattering

them across the poured concrete floor of the hogan.

The statue was gone.

He raced to the door, tearing it open. Outside, the sun had dropped below the horizon little more than an hour earlier; another sixteen hours would pass before it returned. Out of the darkness of the newborn night the wind battered him viciously.

"Dorothy!" he called into the void.

He pushed his way into the open area in front of the hogan, struggling against the rising wind. Stumbling, clawing, running, he made his way to the trail that wound down through the rocks to the desert floor. His eyes searched the way frantically.

The wind almost masked the sound off to his right. He whirled, facing down another meandering trail through the rocks. What might have been a shadow, or an eddy of swirling, windblown dust, hung for a moment in the darkness of the trail and then slipped from sight. He couldn't be sure that he had seen anything at all, but it meant hope and . . .

He started in the direction of the shadow and then balked, quickly changing his course and heading back to the hogan. His gun was inside, on the rack. It was an old gun and had never been taken from its spot; when he checked the charge, there was barely enough left to harm anything, but it would have to do.

Prepared now, he charged outside, running toward the rocks. The wind was already falling off, as though holding its breath in anticipa-

pation. As he entered the passageway between the first boulders, he heard it bubbling and whispering in the shadows nearby. Uncertain as to why, he suddenly began to advance cautiously.

"Dorothy?"

Nothing. Nothing but the wind playing hide-and-go-seek, laughing, teasing him, telling secrets to the dust.

"Dorothy?"

Nothing. Nothing but the wind gathering in the hidden places, growing in strength, waiting for him to come so it could pounce like a hungry beast and devour him.

He stopped at the place where he had seen the shadow. The wind fingered the cuff of his pants and nibbled at his toes. He bent down, carefully examining the sand.

The wind had brushed it clear. If there had been anything there, the wind had taken away every trace of it.

He rose, listening. The wind was drawing back and in a moment the silence would be deafening. His stomach began to turn uneasily. There was something more to this. . . .

There was something behind him. He was sure of it. Something staring hungrily at the back of his neck and making the hair bristle and rise. His finger slipped down to the trigger of the gun. He tried to swallow and found his throat parched.

Carson turned, flinging himself to the side. The barrel of the gun swung upward, aiming into the rocks.

There was nothing there.

And, at the same time, there was something, or many somethings, all

around him, in the rocks. Something very old . . . ancient.

He walked forward, crouched low and ready.

The wind was completely gone now. The sound of his bare feet crunching over clumps of dirt thundered and echoed for miles through the rocks.

Echoing.

The shadow leaped at him from the left, and he spun and fired. Dust and smoke flew back at him, and for an instant Derek Carson went blind.

When the blindness was gone and he could open his eyes again, he saw the thin crevice in the rocks at his side, and the shadow it made across the trail. Had the shadow of the rock, this rock, startled him? Or was there something else?

He took a step toward the fissure and froze: The statue was lying half-buried in the dust at his feet.

He reached down for her, and then froze again.

Her nose and chin had been broken off. He felt his knees go weak and as he picked up the broken, maimed beauty, he heard—somewhere far off in the rocks—the crying of the wind.

* * *

"It's not fair," he protested when he was safely back at the Hogan.

He sat on the bed with the small figure, holding her in his hands and regarding her through a blur of tears.

"It shouldn't have to happen to both of you," he said. "In a way, that's why they sent me here. For

hurting you once before."

Visions flashed through him again. The medal that the Science Academy was planning to award him. The garden, where he had gone to tell her about it. Dorothy, among the lilacs, with the other. Her voice screaming at him, begging him not to strike her lover. Her lover! His fist lashing out, the crunch of bone within her jaw.

Many things would have changed it. If only she had not been a daughter of the Minister of the Presidium, or a benefactress of the Academy. But then, had it not been for his reputation, he might not have survived. Survived to come here, exiled under the guise of a scientific quest. Always the plusses, always the minusses.

The wind scratched a thousand tiny fingers along the bottom rim of the tent fabric. His hold on her tightened, his eyes turned to the walls of the tent. It was like an animal, the wind, scratching around the outside of the tent, searching for the way inside. Hunting for a weakness.

"You didn't walk away from here, Dorothy," he told her. "And the wind isn't strong enough to carry you off. So there's something else out there. Something that can grab you and run. Something that loves you."

He turned the statue in his hand, considering, and then dropped it into the deep pocket of his vest.

"Only I'm not giving you up again. They took you on earth and they took Frank up here. I'm not giving anything up any more. They'll have to come and take you from me."

And, as though understanding this, the wind drew away from the hogan and lost itself in the night.

He slept with her clutched tightly in his hand and he dreamed of things never within his life's experience. The images were incomprehensible but each carried an urgency about itself, a plea for understanding; and each bore the mark of great age, although what it was that made them ancient, he could not decide. The images themselves were unclear but they seemed to be the souls of countless billions of people walking through fields that were green and alive. They seemed somehow happy. But they had a mission, a place to go, and suddenly they were gone.

They took the fields with them, and the happiness departed as well. He could not tell where the people went, or why, but he could sense the confusion that was left behind—although he could see no one there to be confused. The confusion grew into great loneliness and the loneliness lingered, and then one day there was a touch of fire in the sky, and one, just one of them, was returning.

He wore the face of Derek Carson.

* * *

Derek Carson stood facing the west, looking across the desert, with the statue in his pocket and no wind at his feet.

"Was someone out there, Dorothy?" he asked. "A whole race that climbed higher, maybe, than we've climbed up to now?

People who, after living here a few million years, suddenly decided to move? Could they do that, and take everything with them? Peel it all off the planet like the skin off an orange and take it all along with them wherever they were going? And if they did, why?

"I read a report once that speculated that a house knew its occupants—in a real sense. Just as plants know the people who water them, rocks and garden walls and fishponds know what's going on around them, on a very primitive level. What would happen if a whole race left a planet and took everything along with it? Would the planet they left behind know, and remember? Would it get lonely, suddenly, without their life? And then, seeing someone like them return, would it try to make him happy so he would stay? Would it give him the environment he needed, as best it could? And then, would it, seeing him overcome by tragedy, rush forward impulsively to help? Would it wring out its . . . life . . . to give him . . . you?"

He took her out of his pocket and gently touched the fracture line around the lower half of her face.

"Then what would happen if it decided it had given too much and that it was going to be abandoned again? What if the planet knew, in the long run, that what it had given up to give you birth was more important? Would it try to take you back? And what would it do if I said no?"

He looked up, and the planet answered.

He could hear it coming, taking

off fifty miles away among the hills. It was traveling faster than it ever had before. The wind. In an instant it had smashed upon the far edge of the desert, hurtling down from the mountains, and the dust rolled up before it in a monstrous wave.

Derek Carson stood paralyzed with fear, watching the Deathwind scream its way toward him across the arid plain, devouring three hundred miles an hour and building speed.

"My God!"

He ran back to the hogan and zipped the door shut behind him. It was a pitiful, hopeless gesture. The shelter was anchored down, capable of withstanding winds a hundred and forty miles an hour. But not *this* wind. The entire camp would be leveled in a blast equal to three

hurricanes. He looked about in desperation for something to anchor on to.

"This is it, Dorothy," he found himself saying. "Ride this one out and you're mine. This is the big play. Their ultimate weapon."

He pulled down a coil of rope from the shelf and began searching for a mallet. He found one quickly, along with ring pegs for climbing. He hammered the pegs into the cement floor of the hogan and ran the rope through their iron eyes. This completed, it was only a matter of seconds before he had himself lashed to the floor.

"I'm ready now! Whatever you are, I'm ready for you and you're going to have to tear me to shreds before I'll let you have her! So let's have at it!"

The first gigantic wave of wind



tore the hogan from the ground, and everything around him went with it. He could feel the relentless force race under him, grabbing hold of him, trying to pull him free from the ropes or to tear him apart. The bonds creaked and strained, but held.

The dust was a cloak upon him, blocking the breath he fought for. Undaunted, Carson screamed at the wind.

"You can't do it! I still have her and you can never take her away!"

He gulped for a breath and drew in a mouthful of sand. Gasping, he turned his head to the side, trying to find clearer air close to the ground. The sand swept over him.

"She's mine! Bury me and you bury her. Tear me apart and she's crushed."

The wind screamed back at him but the mighty thrust that had carried it forward had also sapped its strength. It still yanked him upward, slicing the ropes into his flesh, but the heart was gone from it. In a few moments Carson knew, and the wind knew, that he would win.

And, knowing this, the wind played its final trump. It fell back to a gentle eddy, barely strong enough to keep the dust aloft in a blinding fog but not too strong to mask the sound that came from just beyond the range of vision. The sound of a barking dog.

Derek Carson lifted his head from the ground.

"Frank?"

It came again, soft but distinct. It was nearby, but receding.

"Frank? They've brought you back?"

The cry grew fainter, more urgent, its volume brought back for just an instant and then returned for resumption of its fate.

"No! Don't kill him again! I understand!"

He worked one hand free from the ropes, forced it across his chest to the statue and began to work her from his pocket, where she had been lashed in place.

"They want a trade, Dorothy. That's the idea. Frank for you. . . ."

He held her up, his fingers clasped tightly around her.

"I'm sorry, girl, but . . . there just isn't a question, you know. You were theirs, and Frank was mine. There are some things that are just more . . . important."

He opened his fingers. The wind grabbed the statue; for a fleeting moment it was as though a cheer rushed back through the wind to thank him. Then she was gone.

The Deathwind died.

Carson tore away the ropes and dragged his battered, bleeding body erect. The dust and sand clung to him, still suffocating, but now they could be ignored. He looked toward the desert and whispered, almost afraid to hope.

"Frank?"

For a moment there was nothing. Then, like a curtain, the dust parted and his friend was there—mouth open in a grin, a younger tail waving rapidly, healthy legs carrying him toward his master.

Derek Carson cried as he went forward to reunion.

A mile away, among the rocks, a small bulb on a badly battered radio began to glow red. ★

Galaxy

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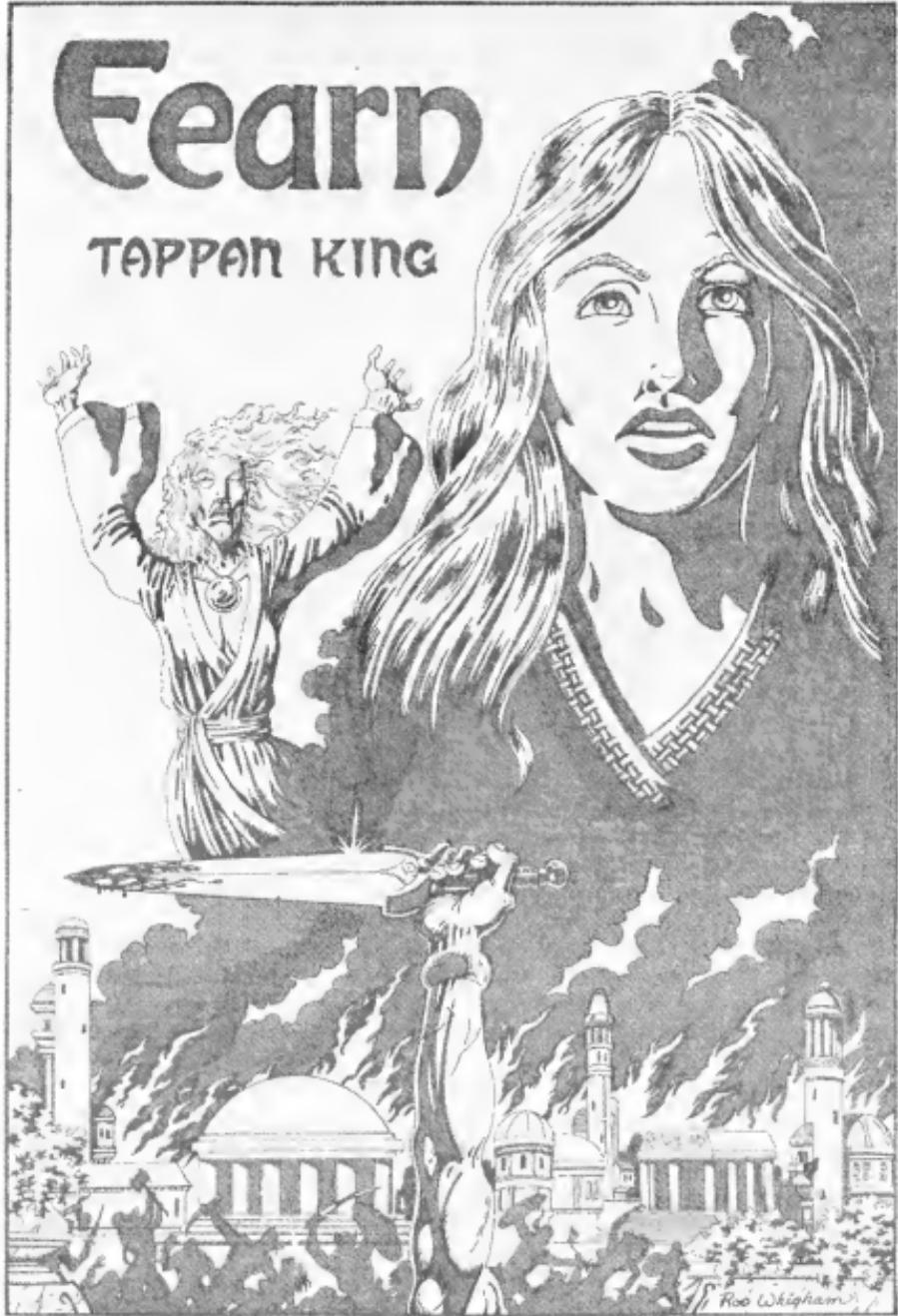
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Fearn

TAPPAN KING



She was heir to a Goddess, master of the ancient mysteries. But the forces she faced were deadlier than all her magics. . . .

BRIT HUDDLED in the harbor of the cave, tugging her matted fur cloak tightly about her. Outside, the rain sluiced off a ragged overhang, gouging deeper its ancient rut. The bones of the countryside, ancient stones, cut through the rounded hills, and the rain became mist in the distance.

How long before they came? Although she could see no one in the fog-veiled valley before the cave's entrance, her neck and fingers prickled with a sense of their nearness. It was the witch-sense, the *weirding*, that warned her of their approach. That same sense told her that the life which quickened in her womb would be a daughter, red-haired.

Brit felt exhaustion settling upon her shoulders like a great weight. Hunger, fear, chill, combined in an inestimable weariness. She offered a silent prayer to the Great Mother that her trial would be over soon, that they would come and make an end to her waiting.

Fearn. That's what her Mother had called them. Brit tasted the

word. It was an old name. It had become, through the long years, only an old tale used to stir the spirit and keep the old ways. Now the word had become flesh.

She remembered the day she had first heard the word. Mother and she had gone for a long walk about the hills near the sea. They had spent the day naming the herbs and wildflowers, for it was her Mother's hope that Brit would have some skill in the healing arts. Brit still knew those names, their given names, and the secret ones which called out their essence.

As the two passed a rock outcropping stained red by the dripping of the water, her Mother spoke:

"What is this called, Brit?"

She had thought for a moment, then raised the word from her memory.

"*Iarn*, Mother."

"It has another, older name, Daughter, a name you must learn." A tautness lined her Mother's face. "It is—*Fearn*."

As she spoke, her Mother took a stick and drew the rune into the

ground before the stone, then handed the stick to her, making her trace it in the dust. Brit repeated the name. It gave her a strange, cold feeling as she did so. Her Mother stirred the dust, so as to leave no trace of the mark.

The work meant *iarn*, but it didn't. It also meant *fear*. In some strange way Brit did not understand, it was also an evil word, never to be spoken casually.

* * *

She heard it next from a father of hers, Pon by name, who had lain with her Mother several summers before. By him she had a sister, called Jo.

On that day, Pon was playing with them, showing them how to parry and thrust with a quarterstave. Such combative arts were left to the men-folk to teach, as they were not as a rule good at fishing, or weaving, or making spells.

Pon grew heated with the game, making wild passes in the air with the staff, cracking it at last against a rock. It splintered, showering chips of hardwood.

He swore a coarse oath and cried, "Bah! If only this were a staff of—*iarn*!"

The way he paused told Brit he meant to call it by another name. She, being then a brazen girl of two moons and forty seasons, shot back:

"Made of what?"

He grimaced, as if speaking of something unspeakably wicked, yet delightful.

"*Fearn*," he whispered, "But She will not let us touch it!"

Brit's ears burned at his blasphemy.

* * *

But she had not learned the full tale until Maeve, Priestess to the Great Mother, called her aside one day.

Maeve had spoken to Brit in private before, in the quiet little meetings not meant for boys, reserved by Maeve for her "young ones," girls who had shown some promise in the divinatory arts. Brit was by far the best at the Letters. She had quickly learned the six-and-twenty, and the three Runes of Power, what each was for and how it must be used. And she had shown surprising skill at some of Maeve's tests, exercises to see if she possessed the weirding skill.

But now, nearly a year to the day after her blood-day, on the eve of the full moon, Maeve drew her aside, to speak with her alone. They withdrew to the cool, whitewashed shelter of the shrine of the Goddess, a holy yet earthy place none might enter unbidden.

Maeve grasped Brit's smooth young face in her gnarled hand.

"*Astered*," she whispered, calling Brit by her True Name, "Thou knowest that I have watched thee these thirteen years with a keenness which hast caused thee some unseemly airs. Yet, thou knowest also that it is thee who is my best pupil, who has learned most quickly and with the most diligence the names of the Holy Runes and their stories."

Brit nodded mutely.

"*Astered*, I have looked long into

my future today, and I do not like what I see, for any of us. There are things I must tell thee now that I had not intended to speak until much later. But now there is no calling it back."

Maeve traced the dark rune on the floor, obliterating it with the same stroke.

"Tell me, young Brit, what you know of this mark."

Brit barely whispered the name, but Maeve coiled back a little.

"So little fear, young one. Tell me of it, then."

Brit told what little she had gathered, that it was a word of great and dark power, that it meant both *iarn* and *fearn*, that it was masculine in gender and, hesitantly, that "one of the fathers" had laughed wickedly at it once.

Maeve nodded. "This is more than most know. Your Mother was a good and wise woman, though without sight. Tell me, Brit, who owns your house?"

Brit puzzled at this turn in the conversation.

"Why, my Mother, good Maeve."

"And who the kine and sheep?"

"My Mother."

"Though she be dead?"

"Yes, good Maeve, through my Mother, her sister."

"And who owns you?"

"Who owns me, good Maeve? In truth I do not know. I myself, perhaps. . . ."

"Well said. And your brothers?"

"I suppose they also own themselves," said Brit. "Though of course, we are all Hers," she added hastily.

"How would it be if you were

owned, Brit, like the cows and sheep?"

"How could that be, Maeve? The animals are given us by Her, that we may care for them."

Maeve drew the rune for *man* on the ground.

"What is this?"

"That is a man, good Maeve."

Maeve crossed it with the letter for *iarn*.

"What do you see now, Daughter?"

The dread sign, *fearn*, had been made again.

"It must mean—'man made of iron,' is that right, good Mother?"

"Well read, Brit. Come. Let me tell you a tale."

As they sat talking, Maeve brewed a strong potion of herbs. Brit felt a strange sluggishness overcome her limbs as its fragrance filled the air. Maeve stretched out her hand, holding a small cup, bidding her drink.

Though her hands trembled, Brit drank the mixture. As the strange brew warmed her belly, she began to feel light-headed. Maeve's voice droned in her ears, telling her an old, old story. As Brit followed the track of the words, she began to see the images old Maeve described as if she herself were witnessing them.

There was a city, white and gleaming, where great, beautiful women and men walked by the sea. In the palace of the Queen, she saw smiths working bronze in the flame, one part of tin to nine parts of copper, as the old formula goes. Here the smiths were men, for their great arms and broad backs made the work go faster.

Next she saw another city on a

point of rock, this dark and massive, built like a great cave. Men only walked the streets, in the dress of ones who were ready to do battle. Their bodies were covered with metal, not copper or bronze, or silver or gold, but a thin metal of black color—*iarn*.

Another smith was at work here, his body gnarled, his red-bearded face set in a permanent scowl. He knelt at the forge, working metal to red-hot temperature, then drew it out and began to beat it into shape. When it was done, a sharp pointed longsword of the glowing red metal lay on the anvil.

As Brit watched, a young woman in chains was brought screaming into the room. The smith took the steaming blade and drove it into her side. Brit wanted to turn aside but was powerless to look away. The smith drew out the blade as the woman fell. Laying it again on the anvil, he scribed a single letter on its hilt—*Fearn*.

The scene changed. Suddenly the streets of the white city were filled with the men in *iarn*. They were killing and raping the women at every hand. Blood ran in the streets, the color of the molten *iarn*, as the women and men met the attack bravely but were smitten by force of numbers.

As the vision faded, a number of women are climbing into the prow of a sleek sailing ship, many taking babes with them, and loosing the ropes. As Maeve's grave old face appeared again before Brit, she saw the city from out on the water, flames the color of blood dancing in the ruins.

"You have seen, then."

Brit nodded.

"You have the skill. It is as I hoped—and feared," said Maeve. "Tell me, Daughter, do you understand what you have seen?"

"A little, Maeve. This was long ago."

"Yes. These women were our Mothers, who fled here years ago in refuge from these men and their stern god whose name means 'man of iron.' Now, why did I ask you those questions about ownership, good Daughter?"

"These men, these—*Fearn*," Brit barely breathed it, "they took women and men as possessions, as if they were cattle or sheep."

"True, Brit. Well seen," said Maeve. "Since that time, *iarn* means only ill luck to she who touches it."

Taking both her hands, Maeve made Brit swear grave oaths about the dread metal, then searched Brit deeply with her cold eyes as if seeking something she was not sure she would find.

"Brit, I will speak plainly," said Maeve at last. "I have chosen you to succeed me, to be Her Priestess. There is a time for this, several years hence, after a long and difficult apprenticeship, when the best of my girls becomes my assistant at Her rites and succeeds me upon my death."

"But you are not dying!" Brit gasped. "You are well, and I am only . . ."

"I know, Brit. But I have had a dream, one I fear I have not the power to give to you, despite your skill."

"What is this dream, good Mother?"

"The *Fearn* come again, Daughter. Not soon, but soon enough. Them we thought well behind us come and find us again, and work their will on us."

"But surely, Maeve, She will protect us from them."

"When I was younger I would have believed it so, for then we were strong and Her observances were well kept. But there are few who remember the old ways. There is a complacency, a lack of caution today. You alone of all my young ones have the arts, or soon will have them. I must have an ally, however young, at this time. Your training must begin now, and in earnest."

"But why?"

"I tell thee, the faith wanes. The women no longer practice the rituals with care, and the men become surly and boastful. Soon the power which protects us will evaporate, like a fog at dawn. The flame that burns in Her shrine must never be allowed to go out. The old songs and poems must continue to be sung and remembered. Time is short, *Astered*, and I have need of thee."

* * *

That spring, Brit consecrated herself to the Goddess, dressing, like Maeve, in robes of white. The young girls with whom she had played drew themselves aside from her, viewing her with a mixture of reverence, envy and fear.

Brit threw herself into the perfection of her arts, committing to memory all the verses Maeve taught her, and all of the healing plants,

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this one to bring labor, this to cool a fever. But she also practiced each day the weirding, seeing what was distant, hearing what was far away, and each day attempting to lift a bowl of wood or a small stone with only her thought. It did not come easily. Maeve helped her learn as she could. Together they would raise a bowl of fruit, or turn aside a falling stone.

Then, one afternoon, in the summer of her sixteenth year, she was sweeping in the shrine of the Goddess and knocked over a fine water-jug with the handle of the broom. As it fell, she felt her mind reach out and hold it, and it righted itself, settling gently on the table again.

Brit turned swiftly, *feeling* Maeve behind her. There was something clouded in Maeve's face, a

mixture of awe and resignation.

"Well done, Daughter," said Maeve. "Your time is at hand. You are ready to join me at the hearth. Come, finish your sweeping, and we will take a walk together."

* * *

It was in the autumn of her twentieth year that Brit was felled by a pain in the heart as she was gathering wood for the hearth of the shrine. By the weirding, she knew the pain she felt was not her own.

She gathered her skirts about her, and began running back along the river bank to the shrine, staggering as waves of pain swept over her, reddening her eyes and cutting off her wind. With an effort of will, she thrust the pain from her, rushing into the small room they shared.

Maeve lay, ashen-pale, upon her pallet, clutching her breast.

"Brit!" The voice was frail and far away, but filled with an inner strength.

"Brit, time is short. Bring my herbals here, quickly."

Brit gathered up the preparations for the trance in which deep knowledge was passed from one Priestess to another, her hands moving with a sureness which seemed to come from outside her.

When the brew was prepared, Brit poured a cup of the heady potion and sat beside Maeve on her severe cot. The fumes from the cup rose between them, and their eyes met.

"*Astered*. Harken unto me," Maeve whispered. "I and thou are one. Her Truth must be passed. Be as a vessel to me and I shall fill

thee. Now, here are the names of She who is our Mother: The Mother of Time, The Namer of All Things, The Maker of Light. . . ."

Brit did not reckon the passage of the hours as the old lore, oft-recited, was said again. From the names of the letters to deep matters of life and death, the whole of the Litany passed from Priestess to Apprentice, from Mother to Daughter. Through all, Maeve's hand gripped hers with an urgency that seemed to draw the strength from her.

At last, after night had fallen, and the stars had wheeled in their courses, Maeve paused. Brit shook her head like one awakened. She saw her frail teacher as a dry husk of skin, sinew and bone, with only a faint spark of light.

Brit brought water. Maeve quaffed the goblet, then pulled her near again.

"*Astered*, I give thee what thou wilt give me. This moment has always been, and, in this time, thou gavest me a vision. I give it to thee now—or rather, we share it, so that when it comes to pass, thou mayest have it."

"I do not understand, Maeve."

Maeve shook her head. "It does not matter, young Daughter. Open yourself to me while my strength lasts, for we shall not speak again. This, too, I have seen."

Brit threw her arms around the old woman, and tears began to course her cheeks.

"Oh, Maeve! Do not go. Surely this is not your time. You will yet live a while."

"Be still, Brit. Our time is short, and we must use it well. Farewell,

Daughter. She who guides the stars will guide our lives. She who measures out our skein of life also cuts it. Our lives are given into Her care, and we must do as She wills with them. Your duty is to carry on. Mine is—mine is to join Her."

Maeve took from her neck the cord which held the silver disc incised with the crescent moon. With faltering hands, she placed it about Brit's neck.

"It is thine now, *Astered*—the power, the privilege, and, yes, the pain. Thou must be Her incarnation on the earth. This is thy destiny, before all else. Let nothing turn thee from it."

Brit felt a coolness settle over her, and the world receded from her slightly, as if a veil were passed between her and it. To her eyes, Maeve appeared shriveled, small. She could barely hear her voice.

"Come, *see* with me. It is summer. The village is in full green. You bring water from the stream. . . ."

* * *

It happened just as the vision foretold. It was an unlikely day for doom, for cataclysm. The bright yellow and green of Her abundance covered the land, and the young, born in spring, tried their new legs.

Brit, dressed in the long white robe of her office, carried an earthen jug to the stream to fetch water for her morning libations. The bitter winter past, the cruel death of her teacher, Maeve, even the vision of this day so vivid when it came, were distant in her mind.

But, as she lifted the brimming

jug from the water, as she did every morning in summer, the sharp clarity of light began to dim. The sad song of the bird above her matched the notes of her vision one for one. The jewels of water droplets on the handle of the pitcher were as they had been.

A feeling greater than terror gripped her. She grasped the jug handle more firmly, ready to turn it out on the grass, but her hand would not move. If this moment could somehow be turned aside, she would forestall the inevitable. But her feet led her up the bank, following the path that led through the wood to the shrine. She found herself whistling a hymn idly. This only deepened her fear.

Though she knew what she would see within the low building which gleamed preternaturally white in the sun, she was nonetheless stricken at the sight. The bowl of oil from the altar lay in fragments on the floor, its wick coiled like an obscene snake. The flame was out.

Though she made the fire again, swiftly, as she had often done at the turn of the year, she knew that it was too late. In the moment that the flame died, a gap had opened, wide enough to let in that which had long been held at bay. The drama must play itself out to its conclusion.

A woman's throaty yell came from behind her. She turned, not knowing if in answer to the call or in anticipation of what was destined for her.

Time held for her as she surveyed the village. To her right, men pushed their heads out of doors, and women looked up from their work. To her left stood the *Fearn*.

There were few of them, perhaps a dozen or so, standing in the road clad in metal, with swords and spears upraised. Brit gasped in outrage and fear. Jo, her slim, dark-haired half-sister, twisted ferociously in the grip of a scarred man with a grizzling of gray in his red-denied beard.

One hand had ripped Jo's robe from her shoulders and now grasped her about the waist. The other hand rested lightly on a shortsword at his hip.

Jo fought for her life. As his great, hairy form bore down upon her, she clawed at his face, leaving a deep bloody welt. With a growl, he cuffed her sharply and her head fell back, limp. Hefting her dazed body, he made for one of the houses about the central square.

Brit hurled herself forward, grabbing up a stout log from the wood-pile. She swung it, two-handed, against the intruder's back. He stopped, turning, letting Jo fall to the ground. She struck again, to the side of his face.

He let out a bellow of rage, striking the stick from her grasp. His sword came up, menacing. As he made a warning thrust, Brit summoned up power, sending a warding against the blade, to turn it aside.

It did not turn.

The blade swung again, this time biting into her upraised arm. At the touch of the metal she felt a slow, cold poison began to seep into her. Her arm fell limp.

She spoke an oath under her breath, calling on the Goddess to give her strength. Again she hurled the warding spell against him, to

stop his limbs, his heart. Though his muscles corded, he did not stop.

A few of the villagers had gathered in a group. The leader turned to his men, gesturing with his sword. She could not understand his language, but the intent was clear. The *Fearn* moved without haste, swords raised. A young man, red of hair, young, and naked to the waist, stepped forward, taking Brit by the arm in a grip of iron. She tried desperately to fight back, but her limbs would not move.

The invaders gestured for the men of the group to step forward. One came docilely and was greeted with harsh laughter. A young warrior forced him to his knees. He knelt.

Another villager did not move. Swiftly he was dead, by a thrust in the chest. The *Fearn* chief roared a meaningless challenge to the villagers as he motioned his men toward one of the houses.

A cry came from behind the invaders. A young woman in woolen breeches held a sickle against the throat of a young *Fearn*.

Two of the warriors stepped forward, but the leader waved them back. They seemed glad to be halted, for they looked upon her with fear, unaccustomed to such boldness in a woman.

The *Fearn* chieftain stepped forward alone. The young woman stepped back with her captive, wary but unafraid. He circled about her with sword extended. He lunged.

The young warrior screamed, his throat opened. As he fell, the leader struck the woman with the flat of his blade. Brit fought against the young man who held her, and

against her own helplessness. It was a fell metal, indeed, to be proof against the power of the Goddess.

A scene of unbridled carnage erupted as Brit watched. The women and men of the village met the invaders with pikes, hoes, staves, scythes, in desperate ferocity. Though slowed by their reluctance to fight with women, the *Fearn* were skilled murderers. In just a few short moments, her people were dead, in flight, or, like her, captured.

The young red-headed man bent to pick her up. Summoning all her strength, she thrust herself from him. She must break free. The Priestess of the Goddess must at all costs remain undefiled.

Though her arms and legs were deadened by the taint of the metal in her veins, she ran, heart pounding, for the shelter of the forest. She entered the shadowed dimness of the trees, hearing the crashing footfall of the man who pursued her.

Suddenly, he was upon her, the disc of *iarn* about his neck pressing sharply into her flesh. The scent of his acrid body filled her nostrils, gagging her. He bent her to the damp soil of the forest floor. There was searing pain, and consciousness, with her vision, fled.

* * *

How long had she been dreaming here? Brit shuddered in the chill cave, shaking the memory from her. Soon they would come for her.

For a moment Brit felt the horror of doubt. Why had She Who Made All Things forsaken her daughters

and their sons? Perhaps there was, after all these years, war in heaven. Perhaps one of Her sons had turned upon his Mother, claiming the earth, the sea and sky as his own. This *Fearn* in whose name the strangers swore their dark oaths called himself King of Kings, Lord of Hosts. His hosts had forced themselves upon the women of the village, upon the Priestess herself! Surely She would not allow such outrage.

No, it was not She who had deserted her daughters. It was they who had deserted Her, neglecting Her offices, and failing to be vigilant in the defense of Her honor.

Reflexively Brit intoned a prayer of penitence. The calm of the ritual relaxed her. She gazed out again at the mournful, rain-soaked plain before her. The Goddess wept.

The new life within her stirred. She reached out with her mind to her unborn daughter, seeking to commune with her. This one, she knew, though not dark-haired like her mother, would have the witch sense too, if she lived to grow up to it to learn Her ways.

When they came, Brit wondered, would they take her life immediately? Would they punish her for having fled when they grew lax in guarding her? Or would they make an example of her to the villagers, of how even the Priestess of the Goddess was no match for their Flaming God?

Brit trembled, not with cold this time, but with the presentiment of another vision. It was not a remembrance like the others, but a premonition of what was to be.

She saw herself in chains. Saw

herself—but how could that be? Who was there to do the seeing? Bands of *iarn* encircled her wrists, from which a chain joined her to a post. She still wore her white robes, though they were old and soiled.

It was her village, but how it had changed. A fence encircled the central square where she was pilloried, and adults and children jeered at her as they passed. Those women who survived had yielded to their conquerors, becoming concubines rather than slaves. They were heavily painted, and proudly wore bands of *iarn* at their wrists or on their fingers. The men had changed also. They had taken on the bold swaggering ways of the *Fearn*, wearing tokens of the metal about their necks.

But there had been other, graver changes. The shrine of the Goddess had been given over to the God, *Fearn*. It was forbidden to speak the name of the Goddess in public.

As her vision continued, she saw the red-haired man who had taken her come to the post in the center square and unbind the collar from her neck, leading her away.

Suddenly she understood a part of the vision. She *saw* through the eyes of her young daughter, the daughter born in spring. So this was how she had survived, through the father who would not allow his child to be slain. Though called by some outlandish name, Brit had told her daughter, as soon as she was old enough to understand, that her True Name was Maeve.

It was evening. The unearthly glow of the moon shone through the window of the house where Brit, her daughter, and the man lay in

stillness. Slowly, quietly, she drew herself to her feet, gently waking young Maeve, bidding her be quiet with gestures.

She looked down at the naked man lying asleep in the moonlight. How easy it would be to pick up his sword and end his life before he woke, swiftly and silently. But Brit forebore the sword, instead gathering up a few possessions and stealing out into the moonlight and across the open fields.

A sentry stood at the crossroads, leaning drowsily on his spear. Brit whispered a soft spell and his eyes dropped momentarily, allowing them to slip past.

When they reached the forest, they began to run, swiftly as they could, not caring what noise they made now. At times it seemed as if Brit held the young Maeve in her arms over rough ground, and at times it seem that it was she, Brit, who was carried.

At the top of a rise, they turned to look down upon the cluster of houses below. Brit's face hardened at the thought of the defilement of Her shrine, at the arrogant and servile ways of her people, and their terrible, false god.

As they watched the sleeping town, Maeve's hands began to weave in an eerie pattern, her voice to incant in an old, old spell she could not have known. Brit felt a thrill of dread.

The roofs of the village began to blossom with a thousand buds of flame, which opened in awful glory. The red fire danced in Maeve's eyes in a parody of innocence. What sort of child had she borne, Brit wondered, who turned

their fiery magic against them? They watched a moment longer in fascination, then were running again.

The vision merged with reality. One moment Brit and her daughter were there in the cave, tending Her flame. The next, Brit was alone again, save for the life within her. Outside, men's voices could be heard above the roar of the rain.

Let them come, said a voice within her. *The child must be born safely.*

She stepped to the mouth of the cave. A half-dozen men had seen the opening and were making their way up the rubble-strewn slopes.

"There she is!" one shouted. "There's the witch! She must be killed. While she lives. . . ."

The red-haired man in the lead raised his hand, regarding Brit's swollen belly. "No!" he shouted. "That's my child she carries! She is to be taken unharmed."

Brit stood still, reconciled. She took the disc she wore from about her neck, slipping it into a pocket of her robe. She would go with them for a time, allow herself to be reviled for the sake of the child she bore. One day she and Maeve would return to this place to carry on Her ways in exile, alone if need be. What matter if it took a thousand years, or two thousand? So long as the spark was kept alive, Her spirit could not die.

Brit extended her arms to the man before her, allowing him to fasten the bracelets of *fearn* about her wrists. She lifted her head proudly, as a Priestess of the Great Goddess must, and began the long journey down into the valley. ★



science
fact:

A Step Farther Out

Jerry Pournelle, PhD

WILL THERE BE STARS IN OUR CROWN?

I KNOW I DO A LOT of conference reports, but I get to a lot of conferences, and they're generally pretty fascinating, so why shouldn't I write about them? At any rate, the latest was the Goddard Memorial Symposium held by the American Astronautical Society; as an added attraction AAS was co-sponsor, with its German counterpart (which is itself the successor to the old Verein für Raumschiffart, of which my predecessor Willy Ley was vice president, so there's another reason why I cannot ignore it).

One of the speakers was myself: I was given the "eye-opener" session at 0830 which I was told was a compliment (if you can't wake 'em up, Pournelle, nobody can, said the session chairman). There was also a panel consisting of myself, ex-GALAXY editor Jim Baen, writers Karl Pflock and Tom Monteleone, and former astronaut Dr. Brian

O'Leary. The staid old AAS is getting positively sciencefiction-conventionish in its style, possibly because the Vice President of AAS this year is Dr. Charles Sheffield whose work you've seen in GALAXY and now elsewhere.

There were also a number of European engineers and scientists reporting on SPACELAB, which is the research module that inserts into the shuttle, and which may be the salvation of our space program. Surely the Shuttle would not survive without it.

I say that not in mere admiration of the Europeans' work; although it is admirable enough I suspect that Boeing or Rockwell or McDonnell-Douglas or Grumman or some other U.S. aerospace firm could have done the job: no, we may have SPACELAB to thank for the shuttle because I suspect that if it were not for the considerable interna-

tional flap that would result, our administration would cancel the Shuttle entirely.

After all, they've killed Enterprise; and while I was in Washington I heard they were trying to kill off the Vandenberg shuttle launches; which means no polar orbit launches with any considerable payload (you can go at a high inclination out of Florida but at cost of much-reduced payload) and that means the Air Force won't have many missions for Shuttle after all, and with the military funding much of the civilian research would go, and when that was cancelled someone would decide that there were no real missions for Shuttle ("Look at how little they plan to do with it. We can get all that done with surplus Titan boosters") and—but you can finish the scenario for yourself.

Fortunately, though, our European allies have spent some real bucks of their own money on SPACELAB and they'd raise a considerable howl if we decided at this late date to leave them hung out to dry. *Deo Gratia*.

Excuse my gloom. The conference was, by contrast, quite satisfying. Once again I heard paper after paper proving that we can do the job. The question is—will we? Because we can certainly afford to. If your system is to ship \$50 billion a year and more off to the Middle East, you can afford *any* research and development that has even a small chance of paying off: and space research has got a lot more going for it than that.

Provided, of course, that we don't get bogged down with the

wierd philosophy of "soft" energies that seems to pervade Washington. At the moment I was giving my talk on space industrialization to some of the directors and technical staff of the National Science Foundation, the President was entertaining a chap who detests "big, hard" energy systems; he wants lots of "soft" systems which are decentralized, locally operated and, above all, labor intensive. Labor intensive means, I presume, that I shall have my choice of forking up my home bio-mass methane generator myself or trying to find someone who'll do it for money I can afford. I'll probably have no choice about my home windmill and gas lights, and the actual methane extractors, but surely hiring the maintenance on those will be no problem: no more difficult than, say, getting a reliable automobile mechanic or TV repairman. . .

* * *

Probably the best paper at the AAS symposium was that of Charles Gould, Advanced Systems Product Manager for the Space Division of Rockwell (what used to be North American). Gould presented a systems study of space industrialization benefits, which, I am sure it comes as no surprise, he finds far outweigh the costs—or, for that matter, the costs of *not* going to space; and there are many.

Start with some obvious facts: there are a lot of people in this world. They'd like to buy things from us. They don't have much to buy with (unless they've got oil).

Thus, in cold cash terms, world poverty deprives us of a potential market of two billion people, or several hundred billions of dollars worth of exports—more than enough to balance our payments and stabilize the plummeting dollar.

And therefore it is in our simple economic interest, as well as charitable, that we plan our future in a way that makes other people rich while benefitting ourselves.

Make no mistake: we have to do something. President Carter has in his short time in office already exceeded the balance-of-payments deficits of all his predecessors from Washington to Nixon combined, and things don't seem to be getting much better. (In fact as I write this I'm suddenly more impressed by my overseas book sales. Guilders and florens and francs and pounds and yen look pretty good. Even lira look better, and you know you're in trouble when the lira looks good. . . .)

The Rockwell study was incredibly detailed. They began with several views of the future: the Donella Meadows "Limits to Growth" thesis, Herman Kahn's "Ingenuity of Man" hypothesis, and Krafft Ehricke's "Extraterrestrial Imperative." The latter is probably closest to the view I have supported in this column: we can break free of thinking of the world as a limited and isolated unit.

Selling such a viewpoint is no easy task. Dr. Stefan Possony and I have been engaged in a long-term study of technology and philosophy (our first effort along those lines resulted in a book, *The Strategy of Technology*, which I'm pleased to

say is still in print after eight years) and one major fact stands out: world philosophy has always been concerned with rather narrowly limits. How could it be otherwise? From Aristotle to Marx, the great philosophers have been dealing with a universe they did not understand. They didn't even know how many stars there are!

This is a point worth emphasizing. For a very long time it has been clear to thoughtful people that there is a limit to growth—and a rather finite limit to what the Earth can support. Thus the very basis of Western thought has been influenced by considerations of limits. Yet it is not very obvious that this view is correct: certainly it is not correct unless extremely long time spans, millions and millions of years, be considered. It is easy enough to see how the ancients—and in a moment you'll see that some "moderns" deserve to be classed with the ancients—inevitably adopted this view. Furthermore, given that most world leaders are lawyers, and of the others most have had a classical rather than a scientific education, it is not hard to understand why the limits philosophy has such a hard time of it.

Example: to this day, we mostly think in terms of "nature's bounty," with "nature" being thought kind and benevolent. Yet a moment's thought convinces us otherwise. Nature is not kind compared to a Kansas wheat farm, or to penicillin. Civilized man has never relied on nature: the closest to that was perhaps ancient Egypt as "gift of the Nile," and even there the Nile was helped along with exten-

sive canals and other massive hydraulic projects. Yet—"bountiful nature" pervades our literature and our religions. (One need not go the other way and assume that man makes himself; there is plenty to be thankful for, and Western religion has not found it strange that God helps those who help themselves).

My point is that until the 1920's we did not know of other "island universes;" we had no concept of how large was the universe in which we live. Until this century we didn't know how many elements there were. We had no idea of the number of atomic particles, or how long the sun will/can last, how many forces there are in nature (we still don't know that for certain).

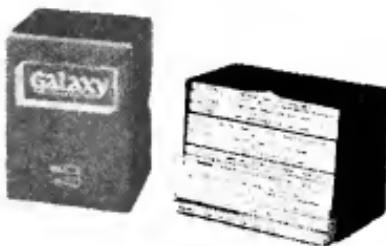
Much of our philosophy of life was old at the time of the French Revolution—which is when electricity was discovered. Plasmas and ions, the "fourth state of matter" and matter's most plentiful form, were unknown when Marx and Engels and Lenin hammered out their plans. Enzymes were discovered in 1907, vitamins at about the turn of the century.

As Posseny says in a recent paper, "As much key events are listed at random, it is clear very few of them had visible impact on political thinking or upon our concept of the world."

Thus, in my judgment, the importance of studies like Gould's for Rockwell: analyses of future options that try to break free of traditional thinking, and look at both limited and unlimited opportunities.

The study considered six program options, which are listed in Table One. The last one, "level of ef-

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TABLE ONE: SIX PROGRAM OPTIONS

- o Immediate Crisis-Oriented Program
Sacrifice nothing for a better tomorrow: things are too bad already. Go for near-term gains.
- o Foresight: Optimize over next 30 years.
Confidence in future, but need to cope with balance of payments, energy, etc.
- o Reaction: Little Ice Age
Assumes valid the data indicating we may be returning to colder climates and shorter growing seasons; uses space investment to mitigate effects on the US and world.
- o International Space Program:
Cooperation in space to foster world peace. Widespread participation and sharing of space exploitation.
- o Geosynchronous Market Leadership:
Capture the burgeoning and probably very lucrative information market for the US. Stay ahead of the competition
- o Budget-Based Program
Level-of-effort budget to keep the program and capabilities alive, but emphasis is on preserving options, not immediate exploitation.

fort," is closest to the present U.S. situation; the first, "crisis reaction" appears to be where we are now moving.

They then looked at different time frames and folded in other variables, so that as Gould puts it, "By the time you consider six program philosophies, 60 opportunities, three ratings of importance, and five ratings of rate—all divided into five time frames—you need to make about 5,000 decisions. We made these and exposed at least 100 persons to the results in complicated reports and extended working group sessions."

Contrast this with the way decisions are made in Washington!

During the study they came up with over 200 space opportunities (60 were used in the study itself). These break down into categories as shown in Table Two.

They then examined space industries: products and energy. Each one needs a discussion in detail. In the study summary one is used as an example: urokinase. This is a catalytic substance which prevents blood clots; it can dissolve small blood clots. Some people take aspirin to achieve the same effect of preventing congestive heart failure

TABLE TWO: OPPORTUNITIES
IN SPACE

- o Communications
 Direct TV; Meteorological information; personal communications; printing systems; disaster warnings; personal computing access.
- o Navigation and Tracking
 Search and rescue; wildlife and marine animal tracking; traffic control (air and sea); rail anti-collision system; UN truce observation satellite.
- o Land Data
 Forest management, land management, pollution monitoring, hydrological information resource management, mapping, snowfall, water basin contents, irrigation flow return, runoff forecasts, etc. etc. etc.
- o Weather Data
- o Ocean Data
 Oil spill, shoreline ocean current, algae bloom measurements . . .
- o Global Environment
 Glacier movement and growth, highway environment impact, tectonic plate observation
- o Budget-Based Program
 Level-of-effort budget to keep the program and capabilities alive, but emphasis is on preserving options, not immediate exploitation.

and stroke, but aspirin clearly has side effects and is hardly optimum; urokinase might have a major impact on human life were it available in quantities. It isn't, at the moment, because it must be separated from urine, about a ton of urine going to make up one dose of urokinase.

SKYLAB and ASTP experiments found that urokinase cells can be separated rapidly and with high purity in the space environment, and that the cells can produce urokinase

much faster in space than on Earth. By the mid 1980's space factories could make this substance available on a mass basis—provided, of course, that we construct the facility.

I have already mentioned energy from space. The study looked into Solar Power Satellites, "Soletta" (mirrors to put more sunlight onto selected places on Earth, either to aid ground-based solar energy collectors, or to prevent frost and increase agricultural yields),

"Lunetta" (artificial moons to light cities at night) and a raft of other options, all certainly feasible.

The Gould study also looked at cutting tools, other pharmaceuticals, optical glasses for lasers, fiber optics, magnets, uniform crystals, long-life x-ray targets, turbine blades, hollow ball bearings, and a whole raft of other potential products. They went through a number of iterations to look at configurations of space industrial facilities.

I suppose it comes as no surprise that the study conclusions are favorable to space development; it is also no surprise that a number of "soft energy" and "friends of the environment" groups will continue to oppose space development. And a final non-surprise: those who oppose space will not have anything like this study to support their views, although I am sure they can and will take pot-shots at this report.

But the potential is there in space; it is easily provable.

Another speaker: Frederick Osborne, Jr., of the Hudson River Conservation Society. His group is definitely "concerned;" it has been among those responsible for preventing the Storm King pumped-storage reservoir proposed over the last decade and more. Mr. Osborne was in Washington not to oppose the reservoir (although he does) but to propose an alternative: a solar power satellite, with antenna farms off the south shore of Long Island. It wouldn't cost all that much more than what the power companies want to do now—and it would, he says, be kinder to the environment.

Furthermore, Osborne said, "it is the historic mission of government to explore the new frontier, build roads to it, and to protect the early settlers. Space is our only feasible new frontier, and it is incumbent on the government to provide access to it."

That's an interesting way of putting it; and very accurate. Lewis and Clark; Fremont; Zebulon Pike; Jefferson Davis' "camel corps," the frontier army; transcontinental railroads—all these were government activities opening up the frontier for the citizens. One can hardly argue that there is no precedent.

And my own point: that we can all conceive ways to make profits in space. The problem is that we are not sure that any *one* activity will support the entire establishment. In addition to the direct costs of space industry there are the general costs, housekeeping, life support, station-keeping, and the like.

Thus the proposal of Jim Baen and myself: that the U.S. ought to operate highways to space, certainly; and it ought to become a landlord. Construct a space industrial park and rent out facilities. There would be takers. Many of them. If the enterprise does not actually make profits, it certainly will recover much of the cost.

In fact—except for the space program, what successes has government had in the past quarter century?

But as I write they're cutting the program.

After all, we live in an era of limits. Hasn't this been clear to our intellectual leaders for a very long time? How could the great thinker

of all time be wrong?

Of course the Victorians thought the sun ran off oxidation, and didn't even know the full potential of coal; Marx knew nothing of modern agriculture or industry; the computer was unknown even in concept; galaxies were thought to be nebulous balls of gas; x-rays were playthings in obscure laboratories; radio-activity was an inexplicable phenomenon; biochemistry was not even an infant science—in other words, at the time our fundamental philosophies were generated, nearly all the discoveries that affect your life were not merely unknown, but impossible in principle.

Technology and engineering drove society and transformed the world. The Great Thinkers of All Time had nothing to say about that; so their descendants, intelligentsia trained in classical thought, denigrated engineering. Instead of developing a world view appropriate to the modern era, we were given reasons why the engineers were mere "Babbots," bourgeois, intellectually contemptible. It was far more respectable to study Marx and Aristotle than to enroll in calculus. Recall the terrible flap over granting a degree in science that almost tore Harvard apart? Of course you do not; but men now living can remember it.

Our government institutions grew from an entirely different world: witness the complexity of the Gould study, which is hardy unprecedented (I was involved in a similar effort back in the 60's, and there have been plenty of others) and compare that to the way laws are made.

Interestingly enough, the Con-

stitutional Framers set up a system more able to react to advances in the sciences, more able to deal with new ideas, than the system we have now. They knew they didn't know everything; and their intent was to have a Congress of citizens, of diverse views; a government service composed of citizens whose career was *not* in government (witness Jefferson calling the presidency "splendid misery," and J. Q. Adams believing his most important work was a report on weights and measures and standards). A government dominated by lawyers turned professional politician was hardly what Adams, Hamilton, Jay, Madison, Franklin, and the others had in mind.

Moreover, although study of the Constitutional debates shows a reverence for history—they discussed the English revolution, the Venetian Republic, Rome, Parthia, Aristotle's "Constitutions" and much that is incomprehensible to moderns not steeped in the classics—you will also find a curious awareness that "a new age now begins;" a sense that there was a complete break with the past, that new data were needed, that the experience of the past was useful only up to a certain point. You will also find a sense of potential that we seem to have lost.

And yet—their glorious future was based only on the belief that man's potential, shorn of the dead weight of government, was much greater than anyone had supposed.

What might they have made of the implications of a study like Gould's?

What might we?

And what will we? ★

EDITORIAL MATTERS

WELL, YOU'VE BEEN exposed to arguments pro and con by Harlan Ellison and Richard Geis over the merits of making the world science fiction convention a sounding board for the Equal Rights Amendment.

By the time you read this, Harlan may be sounding forth from his tent (or, given the temperature in Phoenix, his air-conditioned Winnebago); Phyllis Schlafly may have shown up to picket the convention; and several thousand fans—if they're typical fans—will probably be ignoring both of them.

Not that fans are necessarily either insensitive or reactionary: it's just that business is business and fun is fun. Last year, some Leading Lights of science fiction promoted a boycott of the world convention in Miami Beach because of Anita Bryant and her campaign against homosexuals. Said Leading Lights were conspicuous by their absence. Conspicuous by their presence were gay sf fans, who wore pink nametags, placed an ad in the program book, hosted parties—and shared a good time with the straight fans.

People aren't likely to notice impassioned speeches made at sf conventions. But they'll notice how science fiction fans *act*—at conventions and, much more importantly, in every day life. If we're going to "walk the walk,"

it's more important to do it 365 days a year in the world than four days in August at a hotel in Phoenix.

* * *

To further lengthen an already overlong story—and in belated fairness to the Iguanacon committee—we should point out that it was Ellison's own decision to make an issue of the ERA in Phoenix, and that nothing in his statement should be construed to mean that he has the official endorsement or encouragement of the convention committee.

* * *

Most of you don't go to conventions, or read the fan press; so you may not know about the death of Leigh Brackett. But you all read science fiction, so you know what a great loss to the field this has been.

Leigh was the widow of Edmond Hamilton, himself one of the all time greats; and she had taken his death hard. She had suffered from cancer for some time, but—a professional to the end—kept herself going to complete the screenplay for *Star Wars II* (The latest word from Star Wars Corporation is that her treatment will be used, with any

revisions kept to the bare minimum required by location shot decisions, etc.)

If you haven't read *The Coming of the Terrans*, or *The Long Tomorrow*, or *The Best of Leigh Brackett* in a while, go back to them soon. And don't forget her movie collaboration with William Faulkner, *The Big Sleep*—it's probably still on late night TV, and the recent remake is a turkey anyway. Leigh was *some* writer, and not just of science fiction.

* * *

Frederik Pohl is some writer too, only he's very much alive. And he'll be bringing GALAXY alive next month with the first installment of his latest novel, *Jem*.

Like practically everything Fred writes, it *is* a gem. A huge one, too; it's going to take up five issues—about 120,000 words in all, but none of them wasted. And when next year's Hugo nominations roll around. . . .

Fred's always been known as a satirist, all the way back to *The Space Merchants* (with C.M. Kornbluth, serialized in these pages 25 years ago). More discerning readers have noticed that he can write "hard" science fiction with the best—didn't he out-Niven Larry Niven with "The Merchants of Venus?"

Jem is a hard science fiction novel. It's also a satirical novel. It's also about the making of a Utopia—sort of. *Jem* is a planet—a planet unlike any other you've ever read about, and one realized with as much loving attention to detail as any by Hal Clement. It has *three*

native cultures, each of them fascinating.

It also has, lately, us. The sort of people who sell Feckle Freezers to each other when they aren't clubbing each other down here on Earth. *Jem* seems to be our only hope—*our* only hope. How other intelligent life forms may feel about the matter is something else again. . . .

Jem—watch for it.

—j.j.p.

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EDITORIAL

The Stars in Shroud



Gregory Benford

Ling Sanjen has followed a career as an officer in Fleet, the military arm of the vast interstellar empire man has forged by faster-than-light ships (Jump ships) and the slower ramscoop vessels. Ling is an ofkaipan—a despised outsider in the predominantly Mongol culture, a synthesis of Chinese, Japanese and southeast Asian societies. This is all that remains of the human race; the other nations were wiped out in the Riot War.

Ling is one of the first Fleet officers to come into contact with a strange new disorder, the Plague. It is a crushing fear of open spaces and light, apparently brought on by an alien species, the Quarn. A full-scale war develops between Fleet and the Quarn, but so little is known of the enemy that fleet is virtually powerless. No Quarn native worlds are known. Ling makes the first raid to bring back survivors of a Quarn "attack" on the planet Regeln. On Regeln Ling finds people crowded into foul passageways and self-made piles of mud and stone, erected to shield out the enormity of open space. The survivors are gibbering, mindless cases.

Ling's men evacuate some survivors. Returning to Earth, the crew itself begins to develop Plague-like symptoms. The clearest sign of this is the failure of the Sabal Game, an elaborate public ritual the Empire has made a virtual state religion. The Game reinforces social solidarity and feelings of group cooperation. To Ling, Sabal is an important emotional factor in his life, the underpinning to his ability to lead. He leads his ship's Sabal Game on the

flight Earthward and the Game dissolves into strife and self-seeking among the players—exactly the opposite of what the Game should achieve.

Ling sees now that the Game is the key to the Quarn assault on man. The mysterious Plague spreads through the Game, using man's psychological weaknesses against him. Ling decides not to bring the survivors to Earth. Ling's executive officer, Tonji, brushes aside these ideas. He invokes a Fleet rule against Ling and brings the ship to Earth. Ling is court-martialed for delaying the return of the survivors, which Fleet wanted to examine. An ofkaipan, he is quickly convicted. Only Ling sees that these survivors will spread the illness on Earth; but he is ignored. By this time the disease has affected him, too, and then his family.

For a long year he lives in despair with his wife, Angela, and his children Chark and Romana. They live in the Slots, cramped buildings housing the ill. But gradually Ling recovers, for unknown reasons. He ventures out of the Slots and is picked up by a Fleet guard. Fleet is interested in recovery cases and after studying him they offer him his old rank. Tonji himself offers a post on the planet Veden. Barely suppressing his hatred of Tonji, Ling accepts. Angela protests his leaving Earth but Ling goes anyway, drawn by the urge to act.

Tonji's offer was a barbed one. Veden is in a double-star system. There is a hot blue star, Lekki, and circling it a neutron star, Jagen. The precious Jump ships are no longer used to drop passengers

safely near Veden; instead, Ling must loop near Jagen, losing energy through a gravitational slingshot effect, to reach Veden. He survives-barely-and resolves to settle the score someday with Tonji.

On Veden he must have his eyes fitted with special contact lenses and wear protective robes, to avoid Lekki's ultraviolet light. His junior officers, Gharma and Majumbdahr, are representative of Veden—the sole planet founded by the Indian culture of Old Earth. Ling is given a luxurious home as local Fleet Director. The Lekki-Jagen system is Fleet's stockpile. Ramscoop vessels orbit the two stars. When they are bought by a distant planet Veden Control fires their engines and drops them through the gravitational slingshot (the Flinger), launching them into interstellar space at high velocities. This cuts the transit time for interstellar commerce, making possible the economic empire.

As Ling approaches his new house a winged man swoops down from the twilight sky and tries to assassinate him. Such violence is unknown on Veden. Does it mark the beginning of the Plague here as well?

Ling relaxes into the slower pace of Veden society. But rioting and dissension begin in Kalic, the capital city, and Plague cases crop up. As pressure mounts Ling begins an affair with a girl who was injured in a riot, Rhandra. He feels some guilt about this and dreams of his family, trapped back on Earth, but memories of Angela cannot erase the realities of his growing love for Rhandra.

Majumbdahr becomes a good friend. Gharma is a reliable officer but betrays a touch of ruthlessness. Rhandra leads Ling to a new spiritual Master who has a growing following, the only stable social influence in the gathering chaos of the Plague. Sitting in the simple rituals, Ling suddenly experiences a new lofting sensation, a rippling of lights, and attains enlightenment.

But the greatest revelation of all awaits him at his next meeting with the Master. . . .

9

THE MASTER loomed above me. He filled the room, the whole universe. Warm close feel of Rhandra beside me, sweet air of incense, sticky pull of robes on my flesh—all fell away into nothing.

I focused on the Master. As I slid into it, I asked *What state is this?* and almost before the question had formed, I felt the peace begin. Ripples of worry smoothed and vanished. A state of no definition, no thought, no method. To put aside the thousand things and, in stillness, retain yourself.

"This is done by not thinking various things, one after another," the Master said, his deep rolling voice breaking a long silence.

I laughed. Sound to the side: soft tinkling chuckle of Rhandra.

"Like—that," I said, abruptly snapping my fingers. It was very clear what he meant. Just—that. No words. Only being.

The Master nodded.

"There is more," he said. "Many things you must know. Not as they seem."

I waved a hand in question, laid my head upon my shoulder. The Master moved his body to shield his hand. I glimpsed a small sliver of metal, a box. He fingered it rhythmically. I heard a low smooth tone that died away as I concentrated. A strange prickly shock ran down my neck. I was falling. What—?

Coming back again. I expanded until I could see myself below. Deep white craters that were pores on my face. I shivered in the hurricane that swept down from the nostril mountain.

—You can be close. Warm. Gather once more into the lap of sunlight—

The Master said that, but with no words. I started to turn my head toward Rhandra and stopped, fixed in the Master's stare. Mosaics of light swept through us. I saw Gharma and Majumbdahr standing to both sides of the Master. They must have entered from behind the folds of ruby cloth and stood quietly in place until my attention was focused on them.

—quit of their tasks. You were not ready for me. It was in the place of rightness that you learned Veden first, felt what happens here, saw the signs of fresh ruin—

Majumbdahr grinned wryly at me. I felt a sudden burst of affection for this man who had worked and planned beside me and at all times sensed my inner turmoil. I owed him much.

Gharma gazed at me calmly. His heavy lids shadowed his dark eyes, adapted for Veden and holding something forever unknowable. He was a strange, deep man moved by traditions and social conventions I

would never fully grasp. His distance I respected. And he too had helped me.

—Look now—

The Master stood in one smooth motion. He twisted two spots in his robes and they fell away. But for a swath at his waist he was naked.

Thin, wiry. Long bones moved in his arms and legs, rippling the taut, pale white skin. His seven fingers were like sticks with large knobby joints. A barrel chest. No body hair.

His feet were dark semicircles of thick, tough fiber spanned by radial ridges of cartilage, like toes.

His eyes were deep and black. The mouth curved upward in a thin red line. There was no nose.

A translucent wedge of tissue jutted out where ears would have been. He stood, rocking slightly on the wide base of his feet.

Silence seeped among us.

He was an alien.

The body was unlike anything I knew among the races within the Mongul Empire. Even those races were seldom allowed to leave their home stars, so there was little chance that one would appear on Veden.

I looked at the Master for long moments. I could not fear him.

In a way, this was the answer I had been seeking. The two threads of my life were entwined at last.

The Master was a Quarn.

* * *

It took two days, and some of it wasn't words at all.

Like all intelligent races, they came out of nothingness, armed

with their own peculiar insights and talents.

There had been another Empire, then. Far mightier than that of the Mongul, comprising many more races. It had already begun to decline when the Quarn were young.

Other races ebbed into lassitude and death. The Empire came apart from sheer lack of interest. Yet the Quarn lived on; their time was not yet come. In the dying embers of that Empire they had learned much. Through the long centuries that followed they hoarded their knowledge and studied.

Finally age caught up with even them. The spirit drained slowly away, as they had seen happen to others. The artifacts of their forefathers remained but not the will to build more or to improve upon the old.

Then came Man. The Mongul Empire licked at the edge of the Quarn life sphere. The wisest among the Quarn, who had studied the history of the earlier Empire, recognized some of the same symptoms.

Man dominated every other race and culture he met. He suppressed minorities within his own civilization. It was easy to see why the Mongul Empire had expanded so rapidly. The history of Man was the history of cycles. A continual tension existed between Man the social animal and Man the individualist. Stress on one aspect or another oscillated slowly through the gradual upward climb toward a world culture. The Asian continent was the last local area in which the virtues of community dominated. When virtually all the human race outside of

pockets on the Asian mainland was destroyed in the Riot War, this cycle was disturbed. Asia rose to dominance. Simultaneously, Man achieved the technology to reach the stars.

The Mongul Empire expanded outward on a wave of psychic energy released by the melding of the entire human race into one community.

But Man was not meant fully for community. The duality of his nature was the ultimate source of his resilience and his strength. The Mongul Empire had to fail.

When the Quarn first met it, the Empire had begun to slow down and become formalized. Given time, the formalities would chafe. Rebellion would bring harsh measures. The Empire would begin to split.

The best way to avoid revolution at home was war abroad. It was part of a classic pattern. The Quarn saw that the leaders of the Mongul Empire would find it profitable to disturb the peace of the surrounding races when they met them. The basic instability of the Empire would expend itself on other, more stable cultures.

The Quarn had studied Man for long centuries before deciding on a course of action. They would have to force Man back upon his origins, rid him of the Empire that would eventually crush him. They would use his own weaknesses against him—the only mature way to wage war between radically different cultures.

They pieced together ships that could barely survive in combat with Empire forces. It was the most they

could do with the decaying technology they possessed. The ancient Quarn had left giant devices in free space which could perform enormous tasks—move a planet through Jump space, damp the bright fire of suns—but these the Quarn could not morally use in battle, for a simple clash of arms would not add a new factor to the human equation. They used what ships they could mend and make serviceable by themselves . . . plus what they knew of the human mind.

"But we erred," the Master murmured.

His voice, after so long a time without words, came as low thunder. "How?" I whispered.

"We meant only to disturb Empire—" A vision, here, of a new wind stirring human wheat—"Allow time for self-study. It slips from us, now." The Master's face drew down, the eyes grew gray.

"You did not think it could go so far?" Majumbdahr said.

"No. Some of us have . . . walked to the darkness in payment. For us, the ultimate crime against the race. To relieve oneself of life."

"Is it too late? Can't . . ." Rhandra's quiet urgency faded as she saw the look that swept over the Master's face.

"The sickness ran deep." Dry leaves crackled inside his chest. "So many . . . "

"Can't we, can't we save you?" I said.

He pierced me with a pale glance. "Perhaps. I learn your language only now. I am . . . a measurer, not one who acts. I come to Veden in secret, as we do to all

worlds. That is how the . . . cure, which became a death . . . is spread. We thought we knew you so well. It was an arrogance. When this is done, I shall . . . walk."

"No!" I cried.

"I come on this journey, to earn it."

"I've seen enough of death," I said.

"You will see more."

"Why?"

"I cannot stop it. I tried."

"If the Empire quit Sabal altogether. . . ?"

"The firestorm burns of itself. The ember which began it is consumed."

"Then there's nothing to do."

"There remains a task."

"What is it?" My voice was clotted, blurred.

"There are some who rebirthed. You are such."

"Survived the Plague? True, I did, but . . . "

"Because you are . . . *ofkaipan*. More than that, we know not why, but something more. A fragment of your race will survive. I did not understand this when first you came. My first sin came then."

"Sin?"

"A man, out of the sky."

"The assassin?"

"I spoke of you. A follower, too turbulent in himself . . . "

"Tried to kill me? Why?"

"I thought you carried the Plague."

"We told him of you," Gharma put in. "We thought your recovery was temporary, and you would infect Veden. The Master became concerned. But we never intended . . . "

"You see? We know you poorly. Arrogance."

"A foreboding in the Master became the deed of a follower," Majumbdahr said quietly. "I learned only later."

For a while we sat in silence.

"A wind now blows through the Quarn," the Master said distantly. "Something . . . drawing thin."

We waited. There was a calm still silence in the room. The Master's thin frame trembled.

"We . . . thought the only hope of saving many humans . . ." The words came out as though under pressure. ". . . was to isolate a world from the Plague. Veden . . . was good. Hard to reach . . . by your fast ships."

"Jump ships."

The trembling was very slight. There was a tangible layered chill in the air.

"I thought to . . . kill you . . . a thought of a moment. But it was done. It came from my hand."

"I . . ."

The tension in the Master muted. "I have moved far from my Path. The wind, the unstable wind of the mind that blows through us . . . I am in and of it, now. I . . . the Path . . . I will Walk."

A time passed then and the thought came into my mind of rain, endless rain in the Philippine town I had lived in as a boy. A warm wind brought heavy drops that stripped the leaves from some of the big trees at the end of the square. They were trees from a colony world, with oily purple bark. The leaves lay heavy and sodden in the street on one side of the square where the wind had driven them and some

were in brown drifts against the buildings, a brown against the wet blackness of the sidewalk. The leaves fluttered down in the wind, already heavy with wet and they stuck where they fell. I remembered the way the leaves turned in the wind as though struggling against it, but slick with rain already and falling quickly as they crossed the square. Only the sharp quick gusts of wind were enough to carry a few of the leaves against the building, where they would stick for a while and then slide down the rough stucco and into the brown drifts. It rained like that a lot in the late fall and I had watched the rain from the upper storey of the building across the square, his bedroom window with the blinds pulled up all the way. The corners of the window were misted up from the heat in the room and the cold glass breathed a chill into the room.

A long time.

. . . regard the waters in their rising . . .

I pressed the words out. "What is to be done?"

"Ask you all now. One last thing. On Earth your Fleet now assembles the Patanen—they who laugh at Fate. Those who do not fall from the sickness. Like you."

"Cases recovered from the Plague?" I asked.

"Yes."

"How do you know?"

"Empire studies them. All have been sent from the other worlds. Assembled on Earth. We learned of it recently. We have followers there, near the Patanen."

"Lengen Masters?"

"No." He shifted uncomfortably,

strained by the gravity. "We hide."

"The guru tradition doesn't exist elsewhere," Gharma broke in. "It would appear strange if the Lengen arose."

"There are Quarn everywhere, then," I said. "On all the colony planets, even Earth."

"Search for remnants," the Master said.

I nodded. Fleet would certainly pool the recovery cases for study. "Will these Patanen . . . will Fleet learn enough to matter?"

The Master shook his head regretfully. "Collapse speeds down upon them all. We cannot halt it."

"What would you have us do?"

"I reveal myself to you so you may choose. Know that: I do not command."

"I know."

"My burden is to pluck these last seeds, the Patanen."

"You want to go to Earth?" Rhandra said wonderingly. Soft as night, her eyes.

"A last duty." He breathed heavily with an aged remorse. The bony chest heaved, rattled, the ribs opening and closing like blinds. Alien. "I kenned this in a vision, once I knew you—" a flick of an eyelid at me—" and saw you whole. To Earth—it is possible?"

"I suppose," I granted, not seeing immediately how it could be done. "We'll bring them back from Earth, to Veden?"

"Here may not be safe," the Master murmured.

"I agree," Gharma said. "Veden will be free soon. The Empire cannot hold it for long, or the space around it. But the Plague proceeds here as well."

"Would destroy harmony of Veden to inject diverse cultures. Better a new world."

"Where?"

"We have an Earthlike site. I will lead you to it after Earth."

"Look . . ." I wrestled with plans in my head. "The best we can do is a Jump craft of Class IV or V. We couldn't possibly carry a large number of people aboard."

"If they were ordinary passengers, yes," Gharma said. "But the Quarn on Earthside will cool the bodies. Lowering their metabolic rate will allow us to transport them in storage units."

I thought. The technique was standard and had been developed in the era of ramscoop exploration, before discovery of the Jump. It kept a crew alive through the decades of flight. Their true aging was only a fraction of the elapsed time. People could be stacked in a small space, fed a trickle of air and food through their veins. Stored that way, a ship could carry many people.

"And what of Earth itself. . . ?" I said slowly.

"The Empire has nearly shrunk down to a few systems," Gharma said. "The Quarn will withdraw, of course, but . . ."

I nodded. The Patanen were the most valuable people in the Empire now, a last crucial healthy sample of mankind. Perhaps we could indeed make a new start with them . . . perhaps. "Master . . ." An edge in me teetered near. "I . . . I am unsure . . ."

"True nature only now beginning to emerge."

I glanced a question.

He slapped his fists into a ball.

"Locked. Your nature. Sometimes try to get out. I help it."

"Words, words . . . I don't . . ."

"Remember." Gesture to Rhandra, followed by a manic sign, a skittering dance of the seven fingers.

"The banquet," Rhandra supplied. "The Madi."

He nodded, smiling for the first time in the long hours we had passed together. "Nature . . . escaped."

"That was me?" I murmured to myself, not convinced, fearing something I knew I should not. To be a Fleet officer, I saw, meant you put away a piece of yourself, for good.

"You spoke clearly then." His great head bobbed.

"Ah," I said, and suddenly felt emptied. Gush, the bad air out. *Ah* it was and *ah* it did.

Rhandra gave a quick warm laugh of silk and silver.

I looked slowly at us all, four humans and a Quarn, the cloth vaulting hanging softly above us, and seemed to see it all from a vast new perspective. I saw that we were one and the same.

So did a journey end, and another begin.

Part V

1

Haste manages all things badly. We planned, plotted, lied—and still, it all turned on the captain of the *Farriken*, which had just emerged from Jump space near Veden. He had to believe this:

URGENT
STATISTICAL COINCIDENCE
MEASUREMENTS OF
BACKGROUND ELECTRO-
MAGNETIC SPECTRUM IN
LEKKI-JAGEN SYSTEM
INDICATE PEAKED ACTIV-
ITY ON THREE DISTINCT
FREQUENCY BANDS OVER
PERIOD OF LAST 37 DAYS.
RESPECTFULLY SUGGEST
THIS MAY INDICATE QUARN
SENSORS ORBITING LEKKI-
JAGEN AT UNKNOWN
RADIUS. WE CANNOT AS-
SURE INTERCEPTION-FREE
TRANSMISSION OF ORBITAL
PARAMETRIC LOG AS RE-
QUESTED BY YOU. HUMBLY
REQUEST LOG BE DELI-
VERED BY SKIMMER CON-
JUNCTION 1346 HOURS 14758
ABX 409 TRANSFER.

LING SANJEN, DIRECTOR.

and, buying the story at face value, let our skimmer approach for boarding.

Luckily, he did. For a while.

The Orbital Parametric Log was a block of blue crystal a half meter on a side, with delicate black ferrite stains embedded along fracture interfaces and slippage lines, carrying a thousand kilometers of magnetic memory in 3D array. A computer could read the swirl of dots at a glance. They unfolded into 3D indexing of orbital data for every ramscoop in parking orbit. To a computer eye the ships coasted in that crystal block, flecks of information that hopped from memory site to memory site. The Log was far more precise than any survey the *Farriken* could make by herself in a

reasonable time. It was indispensable: *Farriken* had to smell the sheep before it could hunt the wolves.

Our skimmer locked onto their receiving bay with a clang. We were through before they knew what was happening.

There was a vacuum interface between the skimmer airlock and the *Farriken*'s. We didn't wait for it to fill. Three Fleet men were blown across the distance by our air pressure when we opened our lock. They tripped the emergency access on the *Farriken* and wriggled through. An alarm went off. Before anybody could move on the *Farriken* bridge, two men had found the local lifesystem ducts. They shoved in stungas canisters, popped them.

The third man was Majumbdahr. He clubbed a lock officer and forced open the hatch to the ship's central tube. The *Farriken* is a Class IV Jump ship, with a big axial tube. Majumbdahr jetted down it, risking his neck. If he'd slammed into a parked shuttle craft, or any temporary storage sacs, even his suit wouldn't have prevented a snapped neck.

But the *Farriken* was a tidy craft, everything secured nicely. He zipped along the tube without accident until he saw the bright orange of the lifesystem module and braked to a stop.

Majumbdahr keyed in an entry request. An attendant stuck his head out of the rear hatch. Majumbdahr kicked him back inside, pressed an injection nozzle to his throat, and was squirming into Lifesystem Core before the body stopped thrashing. (We found the man later, in the tube, snoring.) One, two, three

canisters of the stunstuff, and lo—I was the captain of a starship.

The *Farriken* captain had sounded General Alert by then. Two bridge officers came swimming out into the axial tube. I was coasting inward. Training jackets us all: the one forbidden act in the tube is discharging a weapon. The rubbery walls, once pierced, quickly spurt reaction fluid into the tube, sealing off the life zones from the airlocks. So, though a flame gun dangled at my side, I didn't think to reach for it. One of the two saw us, turned, pointed—

I tumbled, switching head for feet.

Boots crunched into his chest. He spun away, rebounded off the tube wall.

The other officer shouted something, jaws gaping wide. (Suited, I heard nothing.) I snagged a hold on a wall mount. The second man braced himself against the tube, legs scrambling for a hold. He pushed off.

I shoved against the mount, coming on him from behind.

A wrench in my belt found its way into my hand.

I clubbed him lightly. The wrench struck him at the back of the head and the tension went out of him.

I turned. Gharma had pounded the second man three times in the stomach, then socked him in the jaw. He, too, seemed to lose interest in the proceedings.

Two minutes had elapsed. We found later that no Mayday had gone out over ship's channel to Fleet Control. That accomplishment wasn't due to us in the tube,

though, but rather to the stungas that a moment before had hissed into every chamber of the ship.

My ship.

* * *

It was good to sit once more in the Captain's couch, to see the long and dimpled cylinder of the bridge encased in its swanky hush.

I let myself stretch and luxuriate for a moment, joints popping, muscles yawning to themselves, and yes, it did feel good. The *Farriken* was the best ship I'd seen, bigger than the *Sasenbo*. It had plush organiform padding everywhere, the sort which sops up debris and even human wastes (if the Captain permitted such use; after all, it went directly into the reaction mass). A fine ship to risk your life in.

"Majumbdahr reporting, sir."

"Sit. And drop the 'sir.' Perhaps the Council would consider us Fleet officers still, but I don't."

"I see your point," he said, slipping into the form-fitting couch next to me. Automatically he glanced at the screens and checked that all systems were normal; not even decades on the ground can take that out of an officer.

"Seems odd, somehow," I said. "A storm of action, and then waiting."

"Waiting is difficult."

"It would be easier if I *felt* like a Captain. The *Sabal* was so much a part of the ships I commanded before . . ."

"Yes."

So I had a ship, but I didn't have a corps of faceless officers in Fleet Central giving orders. Independence

brought its own fresh breath.

Majumbdahr checked a readout and turned to me.

"I just verified that all extra-planetary communications gear on Veden is silenced. They can't call Earth now."

"Ah? And how did you check that?"

"You'll remember—one of our men, a Lengen follower, sent me a signal—oh, I see what you mean."

"Small matter. I'm sure if you passed on him he can be trusted to disable the last transmitter."

"Fleet seems to have no suspicions, yet."

"When will the *Farriken* crew reach Veden?"

"Five days."

"You're sure the comm gear is dead aboard?"

"Yes. I double-checked before we cast them off."

"Good. Good. We'll be through the Flinger in another day."

He studied me. "We don't know how quickly a junior officer on Veden will react, however, if he suspects. That is a significant unknown."

"Who do you think it'll be?"

"The medical officer, Imirinichin. He's always had an itch to command. He might jump at it."

I shook my head. "He didn't strike me that way. In any case, how would he know?"

"Perhaps someone in the *Farriken* crew got off a radio burst in time. The board doesn't record ordinary local traffic, so we can't be sure."

"You know Imirinichin better than I—do you think he'll buy the story we sent on tightbeam?"

"It's not so wild, as Fleet orders go these days."

I scratched my chin. "Um . . ."

"Something *might* have happened that demanded the *Farriken*'s leaving on the double. And it *would* have taken time for us to get clear of the background radiation from the reaction engines, in that ancient skimmer of ours."

I smiled wryly. "Even Fleet, failing as it is, doesn't snatch away a Director, plus staff officers."

Majumbdahr grinned, and I had a glimpse of what he must have been like when young. "Is Imirinichin an expert on cover stories?" "He's got the sensor network."

"All life is a gamble, Ling."

"Um." I looked around. Muffled monitoring beeps came from the hooded consoles up and down the bridge. A skeleton staff manned the stations, scarcely three dozen in all. Those, plus the Lengen priests and the Master, were all we had. "A gamble? I would prefer more chips."

* * *

There was little point in waiting out the time before we entered the Flinger in a state of tension. I ordered short watches and then the bridge to Majumbdahr. I could sense the adrenalin ebbing in my crew, the excitement of the boarding fading. Now was the time to run silent and swiftly.

I made my way down—outward, really—from the bridge, through B deck to C. I passed a smashed hatchway; Gharma was looking at it, shaking his head.

"Difficult to believe," he murmured.

I raised an eyebrow in query.

"These . . . were Fleet officers. In here."

"The Plague cases?"

He nodded. "We had to blow the hatch to get them out."

"A bit messy," I said, judiciously studying the foul interior.

"They barricaded the room with furniture. Sealed off the air ducts with wadded sheets." Some of his crispness and disdain returned.

"You threw them into the skimmer with the rest of the crew?"

Gharma looked at me, his eyes intent. "This is a first line vessel. It should carry the best crew available."

I sighed. "So it did."

"But three of them fell with the sickness before the ship could reach Veden."

"Yes."

"Imagine commanding a ship with a crew like that."

I studied him. Evidently he knew little of Regeln or the flight back to Earth from there. He probably hadn't seen my personnel file. Well, someone had: the Master had referred to it during my meditation with him yesterday.

I nodded mutely and went on. Rhandra and I had chosen a cabin out on C deck, for privacy. It felt strange to walk through a ship so quiet and still, as though it were waiting for something. I keyed into our cabin and walked in. "No news," I said. Rhandra was lying on our cushioned mat, *jonofu* style, hand over her eyes. She sat up at the sound of my voice, black hair tumbling in the weak centrifugal gravity.

"That I'm glad to hear," she

said, and kissed me. "There has been too much news of late."

"Tired?"

"I shouldn't be, I know. Lighter gravity and all that. But I am."

I sat, shucked my sandals. "Things have moved too quickly for us all."

"A year ago a trip to Kalic was a big event," she said with a slight, puckering smile. "Now I'm on my way to Earth, and after that—Yes, it is a little quick."

"Earth is a stopover. A few days, then we leave."

"For where?"

"The Quarn region of the galaxy, the Master says. To begin a human colony on an hospitable world."

"Ling . . ." and I saw the strain in her face.

"We don't like being conspirators."

"Yes. No whole person should have to act that way."

"If we had known the Master longer these decisions would come freely. We would have a focus."

She nodded. I parted my robes and opened hers as well. Our bodies fit together naturally, softly, as though we had been married for decades.

I buried my face in the rich crackling scent of her hair. We formed a warm, secure pocket in the austerity of the narrow crew quarters. I thought distantly of Angela.

She drew away. "It's dangerous, all of it?"

"Danger is relative."

She hit me playfully. "No need to be pompous. I don't want you to lie around like an old bear and make stuffy pronouncements. You'll

begin to sound like the Lengen priests."

I faked a yawn and tugged her over on top of me. She chuckled softly in the folds of my neck. I released her hips; she pushed away to say something. Her shove tilted her back. I raised my knees. She gave an awkward jerk that I helped along. My feet caught her just right and before she could reach out for a handhold I pushed here, pulled there—she spun in the air, a meter high. I kept her tumbling with my bare feet for another ten seconds, laughing at her startled cries of outrage, and let her drop. She thumped onto our pad. "Rrroww!"

"There'll be more if you don't allow me my proper share of dignity. Until you've spent a month in low-g you'll be at my mercy."

"So sorry. I didn't understand the gravity of the situation."

I cuffed her playfully, we wrestled, she pinned my arms. "I hope you give Fleet more trouble than this," she murmured, and then the mood between us shifted again and I found myself staring pensively into her eyes. "The . . . dreams . . . you're thinking of them, aren't you?"

I nodded mutely.

"Ling . . . I was dozing here, and I had something like the ones you describe . . ."

"Terrible, aren't they?" I said with thin humor. "For five days, now. And the headaches . . ." I stopped. I didn't mention that often Angela appeared in the dreams. Angela. Staring at me.

"Yours . . . always with the Master in them?"

"Usually, not always. Despite

what I thought—or thought I thought—something in me doesn't like cooperating with the race that has done all this to humanity."

"In time . . ." she began, and then the reassuring currents lapped over me again, the chimes rang deep inside. *Let us regard the waters in their ways . . .*

After a while I murmured, casually, "Some of the others don't seem to be bothered, though."

"Gharma."

"Right."

"The Lengen priests are keeping to themselves. These last few days they've not spoken to me."

"Or me," I said, stretching, yawning.

"They seem more rigid than the priests at the ashram."

"You haven't seen these Lengen before?"

"A few I knew, but none well. One priest from my home district was a friend of my family and I came to know him in my time at the ashram. He wasn't selected to come with us."

"Um. Maybe the ones here were picked for courage. Or calmness under stress. Or maybe the Master simply likes them better."

"I suppose you're right," she said, nuzzling her nose into my cheek. "I'll take some time to come to fullness with this. That's what the Master told me today."

"How was your audience?"

She chuckled softly in the folds of my neck. "I was awkward. I couldn't seem to concentrate."

"Um hum."

"I suppose I'm still reacting to his being a Quarn. I had no idea until that night."

"It bothers you still?"

"A little. He is alien. Strange. The Master knows so much about my reactions and how I feel. Even before I know myself."

I nodded and slipped off into a light, drowsy rest.

* * *

The corridors were cool and silent as I walked to my audience with the Master. Most of the violet phosphors were up by now, so I wore my Veden contacts. The *Farriken* had ordinary Sol phosphors when we took her. We had anticipated that, of course—it was one more sign of how isolated Veden was, why that planet had been granted the Hindics; adapted natives had difficulty even traveling to the more common G-type star systems. Phosphors are a monolayer that converts electrical current directly into light. We had only to paint over the Sol phosphors with a Veden monolayer and the emitted light shifted into the F-star spectrum. But we'd had little time to make up the stuff, and now ran short. Most of C deck and part of B were still using Sol light. Also, I noticed the Lengen priests, who'd been delegated the job, had slapped the stuff on in broad swabs, missing some of the Sol phosphor altogether. The result was a spectral distribution that looked like a cloudy day to a Veden and deep twilight to an Earthman. I could see complications looming up ahead. Most of the Lengen priests were Veden-adapted; they couldn't function well on Earth. But the Fleet

officers used contacts, like me, and they could go to the surface. The Master had contacts, too, I'd learned. Evidently his home world had a redder sun, but it didn't matter, since he wasn't leaving the ship.

I rounded a corner and stopped, muttering a mild curse. Ahead the corridor was almost completely dark. Only Sol phosphors glowed there. The damned priests had done a spotty job. I circled around the shadowy corridors, taking an indirect route. I made a mental notation to get this situation fixed.

"Director!"

I turned. Gharma approached. "A few words." I nodded. "I am concerned about storage of the Patanen," he went on. "We must deploy added pods from the axial tube."

I began to stroll toward the Master's quarters. Gharma walked stiffly beside me, arms held behind him and shoulders squared. He looked more like a soldier here than he ever had on Veden.

"Very well. Be certain the storage units are put into the pods correctly. The bodies must be arranged so their feet point outward from the axis."

"Space requirements probably will not allow that. I—"

"*Make them allow it.*"

"I'm afraid—"

"Look, these are people we'll be stacking in, not cordwood. How would you like to lie on your side—or upside down—for a body-time of a week? When cooled bodies lie in a static gravity field they undergo corporcular damage and muscle deterioration, because a

few layers of tissue are supporting the rest of the body."

"The effective gravity in the pods is low."

"We have no idea how long we'll be in transit. Even low accelerations can do damage, given time."

"I see."

We approached the Master's quarters. "Well, here we are," I said lamely. Something in Gharma's stiff manner made conversation with him difficult. I kept feeling as if I had to think of something to say next.

"This is your regular audience time?" he said.

"No, I called down when I had time."

"I hope you appreciate the honor of being so close to the Master. Most must wait for their audience."

"You've had yours today?"

"No. No, I am later. I saw the Master a short while and now I go to deliver a message from him to Majumbdahr."

"About what?"

"Lengen priest matters. Selection of ship's tasks."

"Why doesn't the Master tell Majumbdahr himself?"

"He has elected to relay instructions through you and me. He tires easily, as you know. The Master is living under conditions that differ considerably from his home world."

"What do you know about his planet?"

"Nothing more," he said quickly.

I tilted my head. "How long have you known the Master was a Quar?"

He hesitated a moment, blinked. "A while longer than you. He went among the high castes first and was rejected by all but me. I am the only one from the very beginning."

"Well," I said uncomfortably, "very good. I think I'll go in now."

I passed through the antechamber where four Lengen priests sat in zazen pose. We exchanged ritual greetings. I brushed aside a beaded curtain that tinkled. In the inner vestibule the Master welcomed me.

My meditation was as before, a deepening and yielding to inner nature. After, we talked.

The approach to Earth occupied our thoughts. I was uneasy about our passage through the Flinger and whether any moves could be made against us from Veden, but the Master swept these aside. Earth was the focus, he said, and I should bend my thoughts to it. Our task was made easier by Fleet's caution: they'd assembled the Patanen for study in one location. There were thousands.

I shook my head in amazement. "How can you get all this done under Fleet's nose?"

"Same as Plague. Reach into centers of being."

"How?"

"We studied. We have knowledge from your past. When you evolved. Accidents of form in each species. Scent centers. Pressure areas. Neural matrix. All define and constrain."

"I learned . . ." I began, and then stopped, wondering why I'd read all that about left hemisphere and right, the limbic brain . . .

"I *ken*. That was my doing."

"Why?"

"So you see the path. I *ken* you are . . . seeker. Must know. Humans have—tensions." He made a steeple of his hands and pressed the bony fingers together, smiling with thin lips. "Early primates hunted in packs. Tribes. Sense of community."

"Our natural state?"

"Then, yes. Not now." The steeple crumbled. "Mind whispers, says you are alone."

He peered deeply into me and the lights rippled, the waters lapped, and I saw it: Half-men cowering in caves at night, the sweaty scent of tribe around you, pressing close, safe and sure, a mate of your own and a place of your own, and yet . . . always, the voice in the back of the mind, speaking, thinking, turning the world this way and that to catch the sunlight a different way. If you did *this* the prey did *that*, and you had to imagine these things, act by yourself in the hunt, the tribe together, running, calling, yet apart . . .

You, and others. The balance lay somewhere in between.

"A balance you destroyed," I said, a sudden angry flame within me. But the room sang, the waters rose, and I felt the peace descend.

"Restored. You have natural fear—repressed terror—of crowding. Is individual voice crying. Sabal submerges it. We—" a snap of the fingers, clouds dispersing from his hands—"release. Fear comes out."

"You use direct sensory input?"

He nodded. Bells chimed.

"Fear of humanity . . . Why doesn't it go away when

your . . . treatment . . . stops?"

"Sabal resumes then. Amplifies fear again, so soon after."

"You have killed billions."

"We mourn." His face froze into a mask. "Arrogance. I help to correct. Restore natural order. The way it was long ago. Then I walk."

"No!" But as I said it the anxiety eased away upon the waters.

"It will be. I earn it now. To take the Patanen to the Firmament. To bring all things to rest."

"The Firmament?"

"Outside the galaxy."

I saw it all suddenly. "The halo stars. The ancient ones."

"True. We fill them."

"You are *that* old?"

His eyes gleamed in the shadows of his cowl. He made a wary sign of assent.

We fill them.

I tried to think of what it meant to span the great swarming sphere, a thousand billion stars, and peer down at the bright disc, knowing it was an astrophysical stepchild. Halo stars are on the average more isolated than disk stars and poorer in heavy elements. Civilization must have arisen more slowly there, had to claw its way up without rich lodes of metals. Their night skies would be dim. Red embers smoldered there, not our gaudy O, B and A stars that burned bright and flared into early deaths. And in the distance the disk would burn, a gumbo of blues and yellows, dust lanes and misty nebulae, the hub an incandescent blob where the aged black hole spun and sucked, spun and sucked. What did it feel like, to live in the gutted halo worlds, your race ancient beyond counting, and

watch the raw galactic beings spread like weeds upon fresh-turned earth . . . ?

I shook my head. The vision left my head as quickly as it had come. "We . . . I am to navigate above the galactic disk?"

"In time. When the Patanen are in place."

"You had me study it, back then, didn't you?"

"Yes. You would need it."

"The expedition reports . . ." I pondered, "I'll have to recalibrate the Jump programming . . ."

I became lost in thought, and then lost in the rhythm of the ceremonies, and drifting, drifting with the tides and times, seeing all from a rocking swell in the great ocean, at peace.

2

Jagen clutched at us. It pulled me back into my acceleration couch, trying to drag me down the bridge into the tail of the *Farriken*. We were skimming closer to that ball of neutronium than I'd been in my pod, so long ago. The tidal stresses plucked at us. I knew the *Farriken* could take stronger strains than this . . .

The mind reassures, but the body is ignorant. My muscles tensed to fight the pull, even though I knew I was safe. *Ping* and *crack*, the ship flexed. A stylus rolled on my console and fetched up against a toggle switch.

I eyed the screen. Lekki boiled below, streamers coiling like snakes along the magnetic field lines. Ion winds whipped in a violent, violet

dance. I wiped my brow, though I was cool.

"Something coming in from the satellites," Majumbdahr broke the strained silence of the bridge. "It looks like a torch spectrum they're picking up."

I swiveled about to watch the screens face-on, bracing against the tug. "Course data holding firm?"

"Yes sir. Point zero zero five c." He thumbed to a new index. "Several sensor satellites have the signal now, sir."

"How far away?" I said.

"Eight six point three million kilometers."

"Sure it's a fusion flame?"

"Yes."

Sometimes in the last few minutes, while we were close to Lekki and our ship sensors blinded, the white torch of a reaction engine had flared on. It lay ahead of us. The satellite eyes had whispered warning now, but they had to be minutes late.

"A ramscoop."

"I expect so," Majumbdahr said.

I pressed *Emergency Stations*. Wailing sounded down the bridge. Heads raised to look at me, then ducked back to their cocoon consoles.

"Imirinichin," Majumbdahr said.

Gharma, sitting beyond in Engine and Fuel Systems Command, nodded grim assent.

"It appears as though our esteemed medical officer has plucked up the fallen standard," I said. "Give me an intercept."

"Computing," Majumbdahr muttered.

"We're going into rebound, sir," Gharma said over intercom. I

glanced screenward. Jagen grew into a sullen red ball bathed in a radial spray of blue lines: images of the stars beyond, their light warped by the deep gravitational potential around the Black Dwarf.

"Max stress," Gharma called. I thumbed in a satellite view of us. A gleaming blue ball was arcing in a tight circle around a black nothingness. The *Farriken*'s organiform had filmed over with a metal-like polish hours ago, to reflect away all but a millionth of Lekki's light; a chrome starship.

"That ramscoop is nearly dead on our course," Majumbdahr said quickly. "Intercept in fourteen minutes, twenty-one seconds."

The *Farriken* groaned. Our instruments began to unfog. Plasma roiled, red and wispy, sucked free of Lekki by Jagen's grip. I felt pressure begin to ease. We were zipping outward now, our velocity matched to Earth-Sol.

"Compute a dodge pattern."

"Done, sir. Wait . . . our mass detector is coming online again. I'll try for some new data with it. The readings should be more accurate than these correlation measurements I've been using from the satellites."

Majumbdahr punched in commands.

My intercom buzzed, but it was a low-priority call. I chopped it off. I noticed I was biting my lower lip.

"How does it appear to you, sir?" Gharma asked.

"Imirinichin is smarter than I guessed. He waited until we were so near Jagen our mass detectors went blind. Then he moved. He must have guessed we're headed for Earth; that would tell him our exiting trajectory."

I studied readouts, and then: "We can't clear the blast, sir," Majumbdahr reported. "It looks like Imirinichin has a big fat window for detonation. The scoop itself can't get close, but . . . he'll blow the ramscoop fusion plant."

"And let the debris expand at relativistic speeds, snagging us."

"I can cut down the radiation with some maneuvering."

"Do so," I said. "And check back with the mass detector. You've narrowed its range down to get a good reading on that scoop, haven't you? Now scan for anything further out, too."

He and Gharma began working feverishly. I listened to the whine of the air circulators, trying to think. The main screen showed us, a fat blue dot surging up from Jagen. Goodbye, Dwarf.

I glanced down the bridge. In each console cluster many couches yawned empty. Here it was easy to remember we were pinned to the wall of a cylinder: the floor stretched away two hundred meters to right and left, but curved up and away into the ceiling, in front and behind me. Far to the left, a Lengen priest on standby duty made ritual hand passes, perhaps to calm himself.

"You're right, sir," Majumbdahr's words were clipped. "Three more scoops are moving, further out from the first."

"It's a blind," I said. "Even if we dodge the first fusion blast, it'll jam our sensors. Then the later scoops hit us before we can recover."

"We have attained max rebound velocity, sir, as computed,"

Gharma broke in. "Vector sigma not exceeding 0.0004."

"Give me a new course, Mr. Majumbdahr. Maximize the square of the distance we can get between us and all four of the plasma clouds, if those scoops detonate. Include the shock wave effects."

"Computing."

I glanced at visual display. Ahead, an orange cone burned: ramscoop exhaust. Our projected trajectory was a dashed line. The cone pointed toward a red-tagged dot along the line, the place where we would intersect the blast wave. As I watched we crawled visibly toward the dot.

"Log new course," I ordered. "Automatic firing sequence—nose about."

Immediately I felt the rumble and tug of our own motors. Gyros brought us around, pushing aside the fingers of Jagen's tidal grip. Somewhere a servo whined.

"Get an estimate of probable radiation damage," I called to Majumbdahr. He thumbed in orders and downbridge a technician responded: numbers flashed on my screen.

"High," I said, between narrowed lips. "Too damned high. We can't take that."

"I can't give you anything better, sir," Majumbdahr said. "He has us boxed in a narrow channel."

I nodded. "Prepare for Jump space."

There was silence. No one moved.

"It is a risk we must take," I said.

"Yes sir," Majumbdahr said with a note of glee. He slapped a

switch. A hooting wail sounded along the bridge. Lights dimmed to conserve power.

"Metric Computing!" I called. "How large are the Riemann-Christoffel elements in the region just in front of the first scoop?"

An underofficer somewhere answered me. "Within four percent of critical, Captain."

"And how many ships have been lost going into Jump under those conditions?" I murmured, thinking to myself.

"Several. The probabilities are difficult to calculate in a highly warped field such as this, sir, and—"

"I know." The *Farriken* had come out of Jump space well clear of the entire Lekki-Jagen planetary system, where the tensor elements were well known, and then coasted in to near Veden. Taking her into Jump on Jagen's doorstep was—

"Jump computation finished, sir," Majumbdahr called.

"To what order?"

"Third order in local coordinates."

I grimaced. What good was a calculation good to five decimal places, when we couldn't measure the input data to better than three places?

"Power reserves adequate," Gharma said calmly.

"Wait—I'm getting something more," Majumbdahr said. "Mass detector is back on full scan and—oh, I see."

"See what?"

"It's that anomaly again, sir. High above the plane of the ecliptic."

"That again? I thought it was a

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sensor malfunction."

"So did I. But it's still there."

"It cannot be a ramscoop," Gharma put in. "We never orbited any that—"

"Of course not," I said irritably. "It registers as a large mass. How far out is it?"

"More than a billion klicks," Majumbdahr said presently. "Perhaps further. That's a lower bound."

"Oh, no trouble after all," Gharma said.

"The range of scan of this Class IV detection system is greater than I'm used to," Majumbdahr said slowly. "Sorry."

"No matter," I said.

"Still, I wonder what it is," Majumbdahr murmured. "Mass reads larger than any ship. Could be a large asteroid."

"How accurate is that mass data?" I asked.

"I would have to do an autocorrelation analysis—"

"No time," I said with sudden energy. "Majumbdahr, put an automatic scan-and-file on that thing and forget it."

I peered at the screens. While the talk had gone on I had made my decision.

"So it is. Bridge! Metric Computing."

"Sir."

"How does the failure probability increase if we go to maximum boost?"

"Ah . . . rises by 1.84, sir."

"Interesting. Not that it matters, gentlemen." I looked around me at tightened faces and kept my voice conspicuously calm. "We're fresh out of alternatives."

The red ball clawed out to meet us. Plasma billowed in great banks, lit by hydrogen lines. In such a sleet of protons we would fry in twenty seconds.

Far away hung Veden, a creamy dot. Star of India.

"Time," I called.

A rush, a swirl of light.

The falling—

Metal groaned. Someone screamed.

The world outside *Farriken* smeared. We shot by the fireball, through the Jump. With a Pythagorean power, Number held sway above the Flux.

3

Through the starless, naked night—

Our run to Earth took nine days. The blank bare silence outside made the Lengen priests uneasy; a disquiet seeped into the ship. I noticed it and began their training early. We needed teams to bring back the Patanen from Naga, where they were assembled. The exercises and weapons training raised everyone's spirits, including mine.

I spent days reprogramming the *Farriken* so we could make one long Jump to get free of the galactic plane. The Empire was vast, but its kiloparsec diameter was a fleck in the turning sea of the galaxy. Earth lay a third of the way out from the galactic hub, near a spiral arm. The galaxy was ten kiloparsecs thick in Sol's neighborhood. Clearing that vast chasm in one Jump would burn two thirds of our fuel. There was no coming back from the halo stars.

I designed override subsystems to stop the *Farriken* from dumping us out of Jump space too early, when its safety monitors panicked. Gharma and Majumbdahr labored on backup systems.

Activity lifted my spirits. I had always detested intrigue; thus my failure at the low order palace politics of Fleet. The week before we occupied the *Farriken* ran thick with deception and the stench of the half-lie. I became depressed almost without realizing the cause. But when Imirinichin showed his hand—I was sure he was cursing himself now for playing it a moment too soon—I had felt an old exhilaration, one I thought long dead. It came from being involved again.

I had come to think of myself over the last few years as a man of contemplation. As a young scholastic I had decided that men of action—the only kind worth admiring, I thought then—seldom heeded or needed men of contemplation. Oh, perhaps for an occasional practical reason, yes, but not as a habit of mind. So, much later, when I sought solace from the world, what in boyhood was a conviction had become an unconscious axiom, and it placed me firmly in the role of an introvert among men who did things.

These recent days brought my youth swimming back in a way different from the rekindling Rhandra caused. I liked action and movement, the singing zest of conflict, but it had to be to some purpose: something better than patching up the Empire. I needed momentum, a vector, not the constricted sense of

human possibility—of which Sabal was a subtle but integral part—of the Mongul.

My work in Fleet had a touch of that energy, once. It ebbed away as I rose in the ranks. Finally I did not even know it was gone.

There are many ways to shorten a man. Cynicism is the easiest. That, too, I affected for a while, in my middle years with Fleet. Then I had turned to Sabal for what refuge it could give. And now in a curious cycle I had returned to the consuming concentration of work. I spoke of it to Rhandra and she quoted a Veden song-thinker: *Doing's the one reward a man dare ask.*

While we worked, Earth drew nearer. We were running scared. I had captained mining shuttles, hop transports, suborbital cyclers, cargo barges—everything but prime Jump vessels. Running the *Farriken* with a skeleton crew meant I was on the bridge fourteen hours a day, minimum. I prepared routine-sounding reports and sent them under my signature as Veden Fleet commander. I also wrote humdrum *Farriken* reports and transmitted telemetry. I threw in some complaints from each Commander about the other, just to keep things plausible.

Plans win through or fail not because of great ideas, but by small details.

* * *

Numbed by a fretwork of small items to remember and deal with, I lost my way on the route to the Master's quarters. I blundered into the dreary twilight of a Sol phos-

phor corridor, tried to work my through it anyway, and failed. The Lengen priests were the only free hands we could spare to prepare extra Veden phosphor mix, and Majumbdahr reported them blithely uninterested in work. As a commander their bland unconcern irked me, but I said nothing of it to the Master when I reached his quarters, late, and my audience began.

I was only fractionally immersed in the lilting rituals when the Master nodded abruptly and spread his hands, palms down and flexed, to signal the end.

"State is not right," he said rapidly. "Attempting focus while mind—" He twirled a bony finger by his head.

"I—I do not *feel* so—"

"Ah," he said, nodding virorously. "Are. Look—position. Not resisting weight through body center."

I glanced down. As far as I could tell I was in proper sitting form, a slight variaion in the stylized Buddha pose. Alignment of spine felt correct. Odd; surely I wasn't fooling myself that well. There had always been some telltale signs before to show how I was throwing off my own concentration. Today my mind was fuzzed a bit, yes, but I felt properly placid.

"See now?" the Master said quickly, breaking the pause.

"No . . ."

"Ah." His eyes darted to the side. I noticed that he was unconsciously tapping the *majatin* mat with a webbed foot. "Can ken. Important moment approaches. Perhaps—perhaps is bad time."

"Master," I said, "I can learn as

much in these moments as in any other. My inner place is undisturbed by the days to come, I feel that securely."

In truth I felt slighted by his assumption that I was getting nervous about the mission. Enlightenment opens to one the eternal moment and seals the future until its time has come. While I had not attained the Buddha state, the evidence of my own mind told me I was not now deflected from the right path. Or was this presumptuous?

"No." Once more a side glance. A slap on his knee. "You do not ken. I judge your mood not right for study. There are many things you must learn."

"Master—"

"Wrong time," he said abruptly.

With a start I realized it was not I who was distracted, but the Master. He carried no aura of serenity about him now; he appeared as simply another mortal, worried about something. He had misjudged my own state, and not been sensitive enough to catch the error.

I frowned and made ready to go. Rhythmic motions, the old encasing rituals. And even as I passed outward through the *kandimaji* shrine I began to question my own responses, to wonder if I had seen correctly, or if this was simply another layer of confusion I had to pass through, a cloud of illusion my own resisting habits threw up to shield a part of me that I would, in truth, be better off without.

* * *

"Sir?" Majumbdahr caught me on the downramp from the bridge.

"Tomorrow," I said. I rubbed a sandy eye.

"A moment."

"Very well." I waved him to walk and we went 'down' onto B deck.

"You remember the anomalous mass we saw on the detectors back at Lekki-Jagen?"

"Yes. What of it?"

"I . . . I've taken the scan-and-store readout."

"Why?"

"Something bothered me about it."

He said this straightforwardly, as though daring me to criticize him for wasting time. But I knew he had been working very hard, and a good Fleet officer cannot be as meek as a file clerk. "And?"

"It's velocity is high and rather remarkable."

"How so?"

"It will pass quite close to Lekki."

"Couldn't it be interstellar matter drifting in?"

"Not likely. Velocity is far too high."

"So? It could still be an odd fragment."

"Suppose it's something more? Our readings give a mass of about a tenth Sol mass. Suppose it's a Colossus?"

That stopped me. In the twenty-second century some factions had abandoned Earth for political reasons and cast off into deepspace. They didn't have Jump ships or even ramscoops in those days. Instead they built crude reaction engines into asteroids, socked most of their party into coldsleep, and set out. Most never reappeared. Those

who did were often turned into weapons.

"I see. No Colossus has been seen for centuries."

"Another possibility is that it is a simple rogue rock, on freefall into Lekkispace, but . . ."

"Improbable, I agree."

"So, sir . . ."

"What?"

"I would like computer time for a full recorrelation of the mass detector data. Our velocity fix on this thing is poor. I can improve it by a high-accuracy resifting of the data."

"Um." I frowned. "We need read-and-register space badly in the ferrites. I—"

"This could be important for Veden."

I sighed. The Empire was nothing to me, but Veden . . . "All right. Rig it to run after we're in Earth orbit, though. While we're on the surface, in fact. There's no time now."

"Very good, sir."

* * *

I picked our exit Jump locus carefully. We filed the official *Farriken* reports a few hours before Jump. I'd suggested days earlier that we return to Earth, and Fleet had rubberstamped the request. They directed me to remember when speaking to the Veden Commandant that he was inordinately sensitive about his defensible volume, like all regional Directors, and therefore to stress the scarcity of Fleet ships.

I confirmed their first commanded Jump exit. It was far from where I wanted, but if we ignored

them and emerged elsewhere there would be red-ruby hell to pay. Earth could pick up any Jump transit within half a parsec; the super-c radiation burst was like waving a flag.

Just before we Jumped I sent a request for a new Jump locus, explaining that we had too high a matching velocity and didn't want to waste time cutting it down. A Jump time was already computed and anyway the *Farriken* could decelerate enough if Fleet Central would simply shift our exit point further from Earth. They grumbled and gave us—as I'd guessed—some last-minute choice about the precise spot. That meant they wouldn't have a precise fix.

Rhandra stood beside me at the bridge as the Jump came. A flicker, the prickling tension—

We popped into being half a million klicks from Earth, with Luna hanging directly between us.

"Fleet's squawking about our choice, Captain," Gharma called, listening with one hand to the running telemetry.

"They don't want to bother getting a fix on our M and delta-V through Luna Control," I said.

We glided around Luna at high relative velocity. There were unavoidable lags in telemetry between Luna and Earth, I knew, that shaved a hairline of accuracy off our known location.

"Incoming orders," Majumbdahr called. The screens rippled. Fleet was evidently pulling most craft not immediately needed into a dense screen around Earth. We were stationed a bit in from Luna orbit as part of a shifting defense grid.

"Umm," I said, "As far as I know, no Quarn ship has violated Earthspace. These precautions seem rather heavy."

"Perhaps they're frightened," Rhandra volunteered.

"The Empire may be weaker than I thought," I said.

Luna swept below, her ancient craters seeded with yellow gems. The atmosphere shimmered gray-green. I popped my contact filters into my palm; yes, now it was a natural blue-white. Rhandra had to get along with a dimmer, achromatic image. I wondered again how easy it might be to find a suitable F star among the halo swarm.

We left the bridge for a while, since it was time for my audience with the Master. He saw each of us daily. When I emerged this time, feeling rested and my mind drifting peacefully, Gharma was waiting at the *kandimaji* shrine that framed the Master's portal. "He tires?" Gharma said.

"The Master? A little."

Gharma fretted. "He should not keep to so difficult a schedule. This is a great and tragic mission. He is passing through what is, for the Quarn, the last journey. He is filled with an anguish such as we cannot sense."

"How do you know?" I asked, not because I doubted him, but because his solemn air I found wearing.

"I have been with him the longest. I sense his essence."

"I see."

"I left my family to follow his path."

"And Majumbdahr?"

"He, too."

These men had given up much to follow the Master. "Such power . . ."

"Yes. The Quar works are many."

"Yes, vast," I conceded. "Though not perfect, you'll grant."

"The Master senses doubts in you, Ling."

"He does?" I thought of my audience days before, and the Master's odd, edgy quality. Perhaps I had been wrong, though.

"Your center resists."

"Ah." My eye was caught by Rhandra, approaching for her audience. She gave us greetings.

"I should think increased meditation would benefit both of you in these last hours," Gharma said.

"If there is time," Rhandra began. "Surely—"

"Proper equilibrium is essential."

"My hours are not so easily arranged," I said.

"I believe before you leave the ship you should ask for added time with the Master. His hand should guide you."

"Perhaps," I said grudgingly.

"Ling needs rest," Rhandra said.

"I speak for the Master himself."

"Oh?" I murmured.

"There are levels of knowledge among the Lengen," Gharma said, "just as there are grades of priests."

"We are not priests," Rhandra said.

"In these hours of this final task, I should think—"

"The Master himself is pinched by the forces around us," I said. "I feel we should all give mutual aid."

"The Master tires, perhaps, but he is still the Master," Gharma said stiffly.

"Can't you talk to him? Convince him to rest a bit, if you're concerned?"

"No, he must see us all each day."

"Why?"

"It is the Way."

I shrugged. Argument accomplished nothing in this odd mystical navy I'd joined; I returned to the bridge.

* * *

When I tried to think about the Master, as in the talk with Gharma, ideas kept slipping away from me. There were things the Master had done, vast damage to people and cultures, that vexed me . . . yet the rising of the waters washed all care from me, and I saw these cares as yet another false way to pin me to the past, or prevent my own realization. The past, after all, was dead. The future loomed.

* * *

I had designed the fusion warheads myself. Gharma knew a little about fusion jacketing and he helped me seal them with barium and potassium casings, all layered in shells to make the brightest possible ionization cloud around the fireball.

The Earth Defense Screen was a piece of history, a spider web of microelectronics that, the press agency gushed, could pick up a sneeze on Venus. A gossamer net, sensitive, delicate—and stupid.

I had always thought the EDS

was badly designed. It began as a simple tracking system. As Fleet grew they patched in more sensitive satellites with greater ranging. With the Quam war they added many more sensors until they could nail a ship down to half a klick absolute. The grid even registered lifeboats running without comm gear.

All this came from multiplying the number of units, but never changing their sensitivity. The sensors could weather a solar storm, given warning. Otherwise they peered naked into the void; that was their weakness.

The torpedoes went out with hollow thumps. I watched them sprint away. Clumsy weapons, never used successfully against Quarn. Our eleven torpedoes twisted, fanned out—

Ahead, aft, at all sides: the sky splintered.

"Send the emergency distress signal," I called down the bridge.

"Done!"

A boiling wave of electromagnetic energy obliterated the nearest sensors. Further out, high-energy ions and electron-positron clouds seared away microelectronics. Nothing between Luna and Central could pick up our silhouette through that.

We boosted inward. We buttoned up tight, antennas tucked in like a frightened dog's tail to escape the scorching barium clouds. I listened to Fleet's Emergency Response trigger. Bells clanged, our screens flared with confused images. Earth's magnetic dipole field smeared the cloud into a wedge as it expanded. Soon Eskimos, had there been any left, would have

noticed a brightening of the aurora borealis as high energy electrons sleeted down.

We flew blind, sniffing our way in with occasional radar-like pulses from our mass detectors. But the *Farriken*'s permanent log knew Earth-space the way my tongue knows my teeth; we kept to course, bead on a *konchu* wire.

When *Farriken* burst free of the snarling plasma we hung over a herd of ramsscopes, glinting metal-gray. They were awaiting loading for the empire worlds, unmanned. They rode a standard parking orbit that had not deviated in centuries; I could've given the orbital coordinates to two places from memory. The scoops were the sheep we wolves would hide among. They drifted, several hundred strong, webbed on repulsion lines to prevent slight perturbations from causing collisions. Some were damaged, fire-pitted, probably useless. Others gaped wide in their guts, mouths being loaded by automatic shuttles. Every few days a scoop was nudged out by low impulse reaction motors and cast off on a long hydrogen-gobbling course. Sol system had no Flinger to make the first acceleration cheap, so Earth usually had an excess of scoops waiting for re-flight; more came to Rome than returned to the colonies.

This ever-changing flock of metal and organiform was a nuisance to Fleet Ships Catalog, I knew, they hadn't the resolution to pick out every scoop. This close in to Earth—a nose-rubbing three hundred klicks up—Fleet might overlook us.

Might.

Making love with Rhandra was by now a lesson well learned, a refined process. We had each stamped the other with a style fresh and adapted. I no longer felt (when I did *this*, say, or *that*) a pale shadow of times spent with Angela. I had unmemoarized the past. We coiled together in these last moments, finding new geometries for our well-rehearsed arms and legs in the low gravity: Galactic Man at the old slap and tickle.

I lay awake for a while staring into the blank darkness. Outside, Earth waited. Outside was everything, and inside here was my mind.

Consciousness was an analogue map, a point-by-point tracing of the world, and it was generated by words. The left side of the brain, painting reality over with a lacquer of language. Yet something inside resisted the steady rain of words. Our time sense, for one. Something stretched and compressed time according to the intensity of experience, following the ticking of its own ancient clock. What part of us did that? The Quarn knew, I was sure. Had there been a time when the right brain ruled? Did the Quarn know us then? Did the Master himself? The right brain spoke to us now with a thick tongue, muttering below the bright clarity of pressing sentences from the left, raising lids of boxes we could not pry up with language. Was there buried down in there the line between animal shame and human guilt? The swelling hunters fear that became human anxiety? Perhaps the Quarn knew all

that. But the Master's worrisome anxiety, during that one audience, pricked at me. Did he know us entirely? We were not the creatures of millennia ago. Now we could summon up our past for revision, sweeten our afternoons with day-dreams, rehearse the future—my mind flooded with gaudy images of the Earthward bleeding to come—and forge many futures, events branching like a fragile tree. The ability to aim and fire is not a verbal one; the old cleverness ruled there. So I would need left and right brain. And the Master knew better than I what this fresh-scrubbed Ling could do.

After sleep, with Rhandra still dozing, I rose and went down to the armory. I had on my field Fleet uniform. It was clean-cut, dark, excellent for concealment. The team we were sending down carried all the usual Fleet personal weapons; I found them rather unimaginative. I had worked in the backwaters most of my career, and there are places where a flame gun is just so much gaudy hardware. I needed a few touches of subtlety.

I'd made up a few items on the voyage. A pencil-sized tube went into my pocket. Throw it ten meters away and a small powder charge disperses a paralyzing irritant, neatly taking out a five-meter volume, but no more. Below my belt I tucked a silent air pistol. It fired shells stuffed with poisoned flechettes, fine needles that followed ballistic paths once the shell exploded. Some shells I'd packed with white phosphorus, too, to shed a little light on problems. Inside my shirt I wedged a particular nasty: a

plastic-jacketed pancake, green when wet. Slip it from its jacket and the wetting agent escapes in twenty seconds or so. Slide the wet cake under a rug or into some grass. Once dry, any impact will explode it. Tear off a piece and stick it like an old wad of gum to a door jamb; when the door closes, presto. I'd picked up that one on Laganat, from some terrorists we'd captured. They used it because it was cheap and easy; they preferred flame weapons if their could get them.

To this I added the usual: a strangling-wire that reeled out of a wrist band, night specs, gas grenades. All the comforts of the modern world.

* * *

We used drift-craft for the descent. *Farriken* carried pods of them. They were gossamer ships, metal-free to avoid EM detection, with fall-away jets for suborbital work and then sails, chutes, ailerons, stabilizers, swoop-rudders and the rest for skating through the atmosphere. Most were four-man jobs. There were a few one-man gliders, though, and I snagged one. They were programmed, so all but the last fifty klicks down were ordained. I reviewed the troops as launch time approached, said a few words of encouragement, slapped a few shoulders. They were nearly all Fleet men, most with their Sol-adapted vision intact, and a few Lengen priests who'd never been off Veden. They'd be nearly useless, except in dealing with the Quam on the surface.

We dealt with a thousand last details. We sang our final *gonjii* chant. We climbed into the stiff-winged gliders. We coasted out to the lock. *Farriken*'s launch ratchet seized us each in turn. I relaxed utterly, saving energy.

The hatchway slid open before my bubble. Stars burned.

God kicked me in the tail.

I shot out, across a harvest field of ramscoops, and plunged down toward our grazing impact with Earth's film of air.

It was a dreamy time.

A *thump* as the low-luminosity burn came on (invisible from below, we hoped). A hissing as winds plucked at me. Below, blue—a stark titanium blue that would swallow all other colors. Earth spread out below me with its tangle of small lives and deaths that from a distance appears a lawn but up close is wrenchingly confused and cruel, a mad jungle.

Drifting. Chutes popping dutifully open. Sails slanting me down. South America, yawning in summer's heat.

Then we were drifting over New Guinea. Tumbled ridges of green-brown jungle, sliced by muddy gray rivers. Men lived there now, but still not many. I had ventured there once, been bitten and pricked to distraction, and sworn I'd never go back. Now it was absolutely certain I would keep the promise.

To the east lay the Solomons, now an *oskaipan* slum. My slightly pimpled skin would not raise an eyebrow there. Lumps of brown strewn to the horizon by a careless Creator, now bathed in Pacific sunlight that swathed it in ruddy splen-

dor, a light like the crystallized air of the centuries. I had holidayed on one of those specks, sleeping on a pallet with relatives who sweated in the fields each day, eaten a fierce vegetable curry, washed it down with a dark, solemn stout. A soft and quiet time, before Fleet and Angela.

Leaves falling on a still day: slipping down the winds, a covey of stupid birds too lazy to flap. Leyte and Samar we skirted around as dawn broke on their urban sprawls. Panay sulked on the horizon. We slipped lower. Quezon gleamed with street lights.

North now: Cataudanes. Luzon. Mountain ridges clutched up at us. We dipped, skimmed. Then Naga.

No sign of detection. No scree of intercept jets.

Outside Naga we found a soccer field. It lay in dark, though mountain peaks nearby glowed with dawning. I banked and surveyed the surrounding land. Nothing stirred.

I ordered them down. My little convoy peeled off one by one and swooped in for a bouncy landing. Waiting, I studied Naga's shadowed profile. No movement, not even air cars.

A long column of smoke traced a finger from far beyond the city, smudging the air nearby. Above, the stars swam in shroud.

My flock was down. I swooped, glided, wind sang in the struts. *Thump* and I was back in Rome.

* * *

Military history is the story of the terrible murder of beautiful plans by ugly facts.

I'd selected a second-rate farm road for our approach to Naga. I'd hauled vegetables over it a hundred times as a boy, working for summer wages in the fields. A sleepy road, nothing more.

There was no reason whatever to put a Fleet recreational facility seven klicks from Naga along that road. None.

But there it was, complete with three gate guards. I got out of the car we'd stolen and tried to talk them around. Seems the soccer field was in a Fleet enclosure, and they were curious about how a team of officers and men had spent the night in a days-only facility.

One of them wanted to call in about it. Once he got this idea he refused to let go of it. Maybe he just didn't like taking an ofkaipan's word. And he never took his hand off his sidearm.

His arm moved—

So I shot him.

Then the others.

The air pistol coughed three times. The flechettes bored deep. It was messy.

We cleaned up quickly.

We swiped some Fleet cars.

Naga was stirring as the east cracked open with dawn. Trash drifted in the gutters everywhere. Shop windows were often boarded up. Pedestrians eyed us, then moved on, scurrying.

I felt exposed as hell. Every tenth block in Naga had a Fleet box on the corner. A sentry lounged in it, squinting at us as we rumbled by, an arm casually draped over a BFX autoweapon on a tripod. Occasionally its snub snout followed us in a lazy arc.

We went by Fleet offices, a rotunda and marble colonnades basking in the rising sun. They needed a washing; streaks of black and brown wrote an old story on their faces.

Away from Naga center there were no more signs of Fleet. Official buildings gave way to long, gracefully arched residences, prickly with brick pilasters, fragile colonnada, *ostraku* arcades. But here, too, few people walked the streets gold-rimmed by day.

Here the plan went well: I found the warehouses easily, in fact remembered them from times I had worked nearby as a boy. There were no Fleet police in this district. They seemed drawn up around Fleet buildings, letting the civilians fend for themselves.

Someone spotted us and, *clunk*, a warehouse door slid aside. An arm beckoned. Our party of eighteen covered the vacant street, then slipped inside one at a time. I went in first.

"Sanjen?" He was a short, stocky Fleet Lieutenant, plainly edgy and worried. "I'm Cantalus."

We shook hands. Cantalus was orderly, efficient. He had the Panaten already in coldsleep vaults. His working crew was mostly civilians. I counted vaults. "We can squeeze this many in," I said.

"But it'll be close."

"This isn't all."

"Why not?"

"You must understand . . . I have been taking a few dozen Panaten at a time from the Fleet quarters. We infiltrated the staff there. There were hundreds left."

"We're not finished, then."

"Sir, I—we've been discovered."

"What? How?"

"Or I think we have. Last night a high officer came to the Panaten quarters. He wanted three of them, so we did not have to open the wards. Still, I think he was suspicious. He took the three away, but I think believe he may be back."

"Why?" "Why do you think so?"

"The three Panaten were . . . related to you."

"What?"

"Your wife. And two children."

"Impossible."

"No. I verified it myself."

My mind spun in a high and airless place. I had thought little of Angela, had given up Chark and Romana as lost. My opposition to their lobe-tapping must have given them some added advantage. But to have recovered—

"Sir," Majumbdahr said at my elbow, "they've got the trucks. We can start moving."

"Yes . . . Start." I looked at Cantalus. I knew the next answer. "Who took them away?"

"General Tonji."

* * *

I had arranged a pretext through Air Control, to allow us access to the automatic surface-to-orbit shuttles. It was no great trick: we stripped encoding ferrites from the ramscoops parked near *Farriken*, and used those to order automatic shuttles, using ordinary comm lines in the ramscoops.

The problem was getting the vaults

to the shuttles. Cantalus had trucks. Could we get them through the streets? "That's what we'll have to do," Cantalus said. He looked appealingly at two figures seated in the shadows that cloaked the huge warehouse. They were heavily robed and sat very tall and erect. Quarn. But they did not speak and their hooded eyes stared out at us impassively. Cantalus turned back to me. "We have no other way."

"No access to copters?"

"Not now. There is great demand. I could not—"

"All right, the trucks. You have permits?"

"A few." He produced some ferrite stickers.

"Enough to get all these through?"

"I don't know."

"Let's pack them in. Then we'll see."

* * *

The morning heat rose thick and cloying from the street outside. I stood watch at the entrance bay of the storage warehouse. There was surprisingly little activity in the business district. As a boy I'd been jostled and awed in these streets, had flowed in the rivers of men and women and goods, swam in air freighted with price calls and bitter bargains, grunts of labor and cackles of glee. All gone, now.

"We're ready for the first detachment to shove off, Captain," Cantalus reported.

I eyed the narrow docking lanes. The hover trucks purred beside the loading cranes, riding low beneath the vaults. In the murky distance

Mayon spit orange into the tropical blue, ringed in gray haze.

"Go."

The Lengen priests conferred with the Quarn, who still sat stiff and somber. Around them the men who were their followers sweated in the damp air. The Quarn looked exhausted. They had accomplished much in so short a time.

A priest approached me. "A moment?" I nodded.

"The Masters wish to be . . . to go in the vaults."

"Why?"

"They wish to awaken amid their home worlds. They have no heart for the voyage."

"Well . . . all right."

I listened to Fleet comm traffic over Cantalus's unit. It was spotty and oddly incoherent. Our fusion explosions had raked great holes in EDS.

Then came a coded blip from our first detachment. They had gotten through and loaded an automatic shuttle. They were riding up with it.

I sent Gharma with the second group. I helped load vaults myself to work off the tension that hung in the air like smoke. We wrapped the Quarn. Their suety skin gleamed in the noonday light. I marveled at their bone structure: humanoid, unlike the other aliens we had encountered, yet different in pelvis, joints, spine. They lay silent, their eyes filmed. The coolant fluids bubbled up to cover them.

I clicked off the comm. "Gharma is lifting," I said.

"We are nearly ready to leave ourselves," Cantalus said eagerly.

"Mr. Cantalus."

"Yes?"

"Where did Tonji take the others?"

"The base at Mindoro."

"How do you know?"

"He said so."

"Why do you suppose he did that?"

"What?" Cantalus waved to the men to finish the loading.

"Why leave word of his destination? Unless he wanted to be followed."

Cantalus looked at me.

* * *

"Here's the entrance," Majumbdahr called back to us. We crouched in the rear of the hover truck. Dusty lanes zipped by as we sped down the last highway. Mahataqua trees nodded in the midafternoon heat. Behind us in Naga a black finger curled up into a clotted cloud; a fire. A Slot? Eventually there would be no one healthy enough to tend the victims. Then a fire would rage beyond control.

A massive organiform cube reared beside the road. I wrinkled my nose. The stench reminded me of the Slots. Around the cube nothing moved.

We hummed, slowed, stopped. The whine died and we lowered to earth. I swung down from my perch.

"Where's your passes?" a guard was asking Majumbdahr. I joined them. Majumbdahr handed him a clip of ferrites and yawned. He leaned against the truck.

The guard inserted the ferrites in his casette. It beeped. "Looks okay." He turned to me. "We had a call through from Central, sir.

Can't firm up this departure time until we recheck. Some kind of hold on movements, don't know why."

"More chickenshit." Majumbdahr growled.

"Yeah." The guard eyed Majumbdahr, squinting at his Hindic features. He waved us through.

"Double time it!" I called to the men below. I swung the autocrane around for another flat of vaults. I was loading them into the gaping shuttle bay in triple lots, exceeding the max on weight.

Majumbdahr climbed up into the cage beside me. Sweat glistened on his face; a bead of moisture dropped from his chin and sputtered on my flashing console. "How long do you think we've got?"

"An hour at the outside."

"Right." He nodded, weary. "We can load by them. But how about takeoff?"

"When're we programmed?"

"I just phoned it in. One hour, forty-two minutes. But there's a hold on it."

"What's the tower say?" The crane screamed, bucked. "Take one off!" I shouted down at the forks lifts. "Too much." They moved in, the insect arms grappling.

"They're not letting anybody out until that hold is lifted."

"Shit."

"Maybe they found those guards."

I grimaced. I felt a twinge of guilt about it, even in the midst of this. Those three men were going to be with me a long time. Heat shimmered the air. I tried to think.

"No, I don't think so. Anybody could've done that."

"Then what?"

"General Tonji. He knows it was the *Farriken* that touched off that fusion blind. Fleet may accept the most logical explanation—that we blew our core and are now just dust. But Tonji . . ."

I squinted at the sun. A light winked on. I swung the crane around, cables ringing, and set the load down inside the shuttle's hatchbay.

"No, it's too much of a coincidence for him to shrug it off. That's why he took Angela, my wife."

"Sir?"

"For bait."

* * *

The shuttle's bay doors clanged shut. Cantalus and I dogged and sealed them. Sweat darkened our suits.

"This craft won't move a centimeter without tower approval. They've frozen the magnetic servos." Cantalus gazed at me steadily, plainly asking for an answer. I was in charge, wasn't I?

"Quite so." I studied the bare, vast field. The tower was a blockhouse with a tall spire, a full klick away.

The men stood around the loading bay. I waved the Lengen priests aboard. There were cramped but adequate personnel racks inside, enough for us all.

I climbed up onto a catwalk, boots clanging on the metal, and made a megaphone of my hands. "We're going to take the tower. I want three volunteers."

Majumbdahr raised his hand.

Five others followed. I picked Majumbdahr and two others. "The rest—inside." They filed toward the shuttle, most of them dragging their feet with fatigue.

Cantalus approached. "We had not planned to leave with you."

"I think you should."

He looked uncomfortable. "As I said, we had not so planned. However . . . I called through on comm band to my duty station. The wards where we kept the Panaten are surrounded."

I frowned. "By whom?"

"Fleet infantry."

"More of Tonji's work."

"Perhaps."

"Board the shuttle then. No point in your staying here."

"Will there be room for us all?"

"Just barely. When Majumbdahr gets back from the tower button up and lift immediately."

Majumbdahr was at my elbow. "Why me? What about you, Captain?"

I pulled out my air pistol and rearmed it. The magazine made a loud *clack* in the bay. "I'm not going with you."

"You must," Majumbdahr said.

"This is a personal matter."

The men stood around me, silent. I obviously went on checking my weapons. "Sir . . ."

"No discussion, Mr. Majumbdahr," I said sharply.

"I will go with you."

"No you won't."

"You know the Jump programming. You've altered our inflight subsystems."

I could feel my face tighten. "So what?"

"*Farriken* can Jump without you,

certainly. But it will be more dangerous."

"Not much."

"But some. If I go with you the chances of your returning are better."

I sighed. "I don't ask for your help."

"I didn't say you did. I am offering it. And you cannot very well stop me."

I waited. Majumbdahr gazed at me, impassive. Then he smiled very slightly.

I began to wonder who was the hero here, and who the fool.

"All right," I said. "All right."

* * *

We got most of the way without trouble. The admin offices were nearly deserted. Ho hum. Business as usual. Few heads lifted to study us as we went by.

We skipped the elevators and went for the emergency stairs. At the base of the spire I unshouldered my equipment bag and fished around for a lock decipherer. *Farriken* carried a few for emergency purposes and Gharma had thought to bring one along. I fumbled through my encoder sigs, stets and assorted gadgetry a Captain acquires by rights, and found it.

The emergency stairway popped open without activating its alarm. I resealed it from the inside. We went up the stairs single file, pausing at each floor.

Through a side portal I could peer down at our ground car. Nobody went near it.

At the top floor I sigged the double lock, then popped the alarm be-

fore it could blow. We waited for signs of interest from the other side of the fire door. Nothing.

"Fast and easy," I whispered.

One of the men kicked the door open.

We charged through.

I pitched a gas grenade. It went off in Forward Control. Brown smoke poured out. Two Fleet officers turned toward us. They opened their mouths but no sound came out. One pointed. Then they both fell.

A Lieutenant rose up from his console and scrabbled at his side. The man next to me launched himself forward.

He hit the Lieutenant just as a pistol appeared in the space between them. They crashed into a readout casement. The pistol didn't go off. Majumbdahr was there by then. He clubbed the Lieutenant with a flame pistol.

The gas hissed away, dissolving into harmlessness. I swung my air pistol around to cover the rest of the Control pits.

They were empty. The tower was run on a skeleton crew.

* * *

We held the tower top for over fifteen minutes.

I dropped grenades through a rollout window, directly on the first squad that came to check out a call from below. By that time Majumbdahr and I had figured out enough of the launch procedure to lift the hold on our shuttle. Majumbdahr programmed and called through on comm to clear our passage. I covered the stairs. The



other two bracketed the elevators.

That's where two underofficers appeared. The elevator zipped open and there they were.

One step, two— Flame guns brought them both down.

Majumbdahr called out that we were cleared. I swung around from covering the stairs. Only then did I notice that one of our men was lying with his side blown away. One of the elevator men had got off one shot; I hadn't even heard it.

I peered down from the tower. A chunk of concrete blistered and crumbled above my head. They were firing from below. Three men, as near as I could see.

"We're trapped," Majumbdahr said.

"Unless we can draw them inside," I leaned toward the open window and dropped another two grenades. The firing from below stopped.

"Down the stairs," I said.

We clumped down as fast as we could. The man ahead of me stopped at the ground floor, where we had come in. I motioned him on.

We ran down the last flight to the basement. It was dimly lit. We wandered down two corridors before finding the surface exit.

I could hear muffled firing: flame weapons. Time ticked on.

"You think they haven't got this covered?" the man with us asked me.

"These are ordinary Fleetfield police. No guarantees, but maybe they're thinking of saving the equipment upstairs more than getting us."

"I hope you're right,"

Majumbdahr murmured.

I wasn't.

Two steps out the doorway the man crumpled. Blood sprayed from his chest. I was right behind him. A flame bolt seared the air by my ear.

I dropped behind an abutment. They had left one gunner by our car. I could see him crouching behind it.

Two crisp frying sounds passed over my head from Majumbdahr. Both missed. I aimed my pistol at the man's feet, which were still visible. One, two, three shots—all kicked up concrete near him.

"Don't use a grenade," Majumbdahr called. "We need the car."

I nodded. Aimed.

One cough, two—a foot jerked to the side. The man fell into view. I fired three more times. He went still.

"Come on!" Up and running with a blind, furious energy.

I reached the car. Its side window evaporated.

I jerked open the door and Majumbdahr lunged through it. I slumped halfway into the car and thumbed on the pilot.

Whoosh—we shot up fifty meters.

I slipped out of the seat. I clutched at the side rail. The car tilted, ready to boost to cruising speed. I screamed something. A hand appeared. I snatched at it.

Air ripped beside me. A hot tongue licked at my leg. I wrenching myself up and got a thigh over the seat railing.

A giant slapped the car.

I lost one hand hold. *Into the cradle, endlessly rocking*—

Majumbdahr grabbed the other hand and tugged at me. I felt something tear in my biceps.

The car was still accelerating. I looked down. The gray field flashed by below, blurred.

All reality, I remembered, was a mere illusion. Really.

Majumbdahr tugged on my hand. I got a purchase on the seat amounts and heaved upward. Wriggled partway into the seat.

Wind buffeted me, howled. I rolled in. The car door hissed shut.

"You all right?"

"Call the shuttle. Tell them to launch."

Majumbdahr fumbled at the comm and barked a few words.

Squawksquawk.

He nodded. "They're off. Nothing will stop them now. Hey, you all right?"

"Just glad I didn't have time to think about that." I panted.

"You're all right?"

"I'm all right."

5

Just breathing, for a while.

It was absolutely fine to simply suck in the air. Feel it fill up the lungs. Then push it out. Sweet wind.

Breathing had been something else back then—an hour ago? thirty minutes? An ordinary thing.

After a while I began to notice jungle rippling by below us. Green sea. Spatterings of blue, yellow, colors clear and bright. Slowly the trembling in me started to ease off.

I summoned up an old joke: It's not that I'm too young to die, it's that I'm too *me* to die.

I grimaced. Some jokes don't get old. Maybe that's because they aren't jokes.

I started to think and then, shakily, to plan, and here's how it went:

Land at a civilian lot. Shortcircuit the lock on a cheap skimmer. Send the Fleet craft off like a bat out of the proverbial, north. Lift the skimmer, heading west.

Ditch the skimmer at Batangas. Swipe a cruiser. Hop it to Lucban and leave it parked near the main street. Take a bus for two klicks. Get off. Buy five matanaglos from a street vendor. Speak to each other casually, walk easy, two officers taking a lazy day off. Stroll into the Toshogu Shrine and out the other side, to the House of the Ascending Dragons. Find a cloistered garden and eat the *matanaglos*. Drink from a nearby fountain. Catch a belt to the commercial district.

There we had to move more carefully. I made a business 3D call to the orbital trade center in Yomeimon. Then I had them route me through their net to offplanet comm. Then into Earthspace Licensing. By that time I was patched through enough channels to cover the origin of the call. I punched through the encoding I'd set up before leaving *Farriken*.

Gharma answered. Then our back-up scrambler cut in. I had to re-code. The screen cleared. I told him—not in so many words—to look for a Fleet booster coming up on the ramscoop fleet, maybe toward morning. That would be us. Anything else was trouble. If there was any doubt, Jump immediately. Never mind the backwash—ramscoops be damned. Oh yes, and

incidentally—forget us, too.

"The Master orders you back now," Gharma broke in.

"Why?"

"This is unnecessary."

"I can't leave without them."

"You must."

"Uh huh. Watch for me by morning's light, friend." And signed off.

6

Dark behind, dark ahead. A drop traced itself down my brow, hung on my nose. I puffed and blew it off. Insects pricked at my neck. Every moment or two something rustled nearby.

Let them go. Some of those beasties were big enough to set off trip sigs, which meant Mindoro Base couldn't use sigs this far out. Area Denial Theory, Course 213B.

Clouds boiled in from the South China Sea, blotting the stars. The lights of Mindoro danced in the warm air. A bird warbled to itself. My night specs slipped on silently. I kept my eyes fixed ahead and turned my head slowly, using peripheral vision. Nothing. A raw field ahead. Low, shiny-leaved bushes. A hooting call, fading.

All this because Angela and the children refused to stay pinned in the past, in that Paradise where choice had fled.

"I'll move up to the Stet key," I whispered to Majumbdahr. He nodded.

I wriggled forward, mud's liquid fingers tugging. Ten meters, then twenty. The stubby box winked an orange indicator when I inserted the signet. I fumbled with the Fire-

tongue Stet and snicked it into the receiver. Rigid geometry among a sea of mud.

Orange winked to red. Rejection.

Not the winking red that sprang an alarm, though. The key mechanism knew this was a legitimate Fleet Stet. But not the correct one.

Majumbdahr crawled up behind me. He saw the red dot. "That's the current Stet," he whispered, unbelieving. "It was on the *Farriken*."

"Right."

"Tonji must've known we'd have it."

"Right."

"So he's changed the Firetongue over to some other scheme."

I nodded. Recoding the Stet entry-point by entry-point was a huge job. Tonji hadn't had time for that yet. So he must have used some fallback Stet. That way the change took only hours.

Majumbdahr had followed the same chain of reasoning. "That's that," he said. "Let's get out of here."

"No. Wait." I rummaged through the equipment bag. If Gharma had loaded everything in my quarters—

"Here." I fished out the Stet I had kept from my earlier commission.

"Where did you get *that*?"

"A keepsake. Now if Tonji did the easiest thing—" The change in Stets had been made a year or two before. There were undoubtedly some older Stets around. But a man in a hurry . . .

Snick. Orange. Orange. Wink: green.

"Damn!" Majumbdahr grinned.

* * *

We walked and crawled the klick, slow and easy. No fire flashed out of apparent nothingness to lash us down.

Most of Mindoro was dark. We slipped from shadow to shadow.

Nothing moved. Where were the patrols? Had Fleet cut back so far they no longer had troops for their bases? I remembered the ancient quotation in script above the Toshogu Shrine: *All the flowers of all the tomorrows are in the seeds of today*. But the script was streaked and weathered, one letter hanging by a single tab. There was no one to keep the ancient shrines. And for this tarnished Empire, no seeds of tomorrow.

I peered around us, uneasy.

Majumbdahr had no warning. There came the scrabbling of nails on earth. One shadow oozed into two and a dark form struck him. He pitched backward, flame gun coming up.

The thing slashed at his gun hand. I heard something rip. Majumbdahr rolled. The thing snarled and bit.

I threw myself on it. Musty damp fur. Nails raked my side. The thing turned. "Kill," it said quite distinctly. "Quarn."

My strangling-wire reeled out. Majumbdahr moaned as jaws closed on his arm, legs kicked at him.

I slipped the wire around its throat and jerked back. Breath strangled out. I jerked again, lifting its throat.

Once more—the head toppled away.

It was a German Shepherd, Fifty kilograms of muscle and teeth and black hair, and all of it quite dead. A smart dog, genetically altered to know the best moment to hit us.

I felt sick. We had learned a hard lesson centuries ago about tinkering with human genetic material. Fleet had no such qualms about turning man's best friend into fanatic, smart killers.

Three buildings away a flashlight bobbed. We melted into the shadows and worked our way toward it. The small Fleet field glowed in the distance. Stubby noses pointed toward the scum of sky.

I sniffed. An acrid tinge in the moist air.

"Ton! Here old fella! Ton boy!"

But Ton boy wasn't in the watchdog business any more. We waited for him.

Majumbdahr was tired and angry. I could sense it in his ragged breathing. The dog had gnawed into him. It took five minutes to seal-and-freeze the gashes. He had to stay alert, so there was nothing to do about the pain.

The man—a corporal—passed nearby. Majumbdahr stepped from shelter and clubbed him solidly.

I had to use a stim tab to get the corporal awake. Majumbdahr meant business.

* * *

Pharmaceuticals are bad for the character. Within ten minutes Ton boy's master was babbling quite happily about matters he'd have

rather died than give away, normally. Luckily, he wouldn't remember any of it later.

We searched him thoroughly and got his encodings for the Mindoro locks. Insects clicked and sang. Clouds rolled over. A booster burst orange on the field and arced away. Troops passed in the distance.

The corporal called in his dogs. They were quite docile. One of them even carried on a passable conversation about the funny smells around the base tonight. We put them all out for the evening.

The corporal marched his rounds with us beside him. Like all security people he knew a lot more than he was supposed to, most of it by simple deduction.

Mindoro was on stand-down. Most of its troops were offworld. But its area defense systems were second to none and that was undoubtedly why Tonji had brought Angela here.

The corporal was quite bleary-eyed, pale and drawn by the time we reached Central's main building. He took us through most of the check points. Then he collapsed in a side corridor. Pharmaceuticals have their limits; so do human beings.

Majumbdahr stayed behind. I approached the next check point. Nobody even glanced up. I dropped the pencil-sized tube. I hit my boot soundlessly and rolled under the guard's desk. A Lieutenant looked at me, at my uniform, frowned.

"Ah!" I snapped my fingers, grinning. "Forgot something."

I turned and walked away. The tube went *skreeeee-bam*. I turned. The Lieutenant was choking, stiff-

limbed, eyes bulging. He fell.

Then we walked some more.

After a series of unlabeled doors I motioned Majumbdahr back. I slapped a boring charge on a door's lock. I set the tiny timer and stepped a few meters away. *Chuung*—it flared orange. I eased the door open.

A foul reek seeped out. A hoarse voice pleaded from inside. Someone gibbered.

Regeln swam back to mind. I thrust it aside and slammed the door.

We walked on quickly.

Tonji wasn't hard to find. His name was on the door.

He looked up from a console when I went in. A hand convulsed, froze.

He said something obscene. My air pistol looked at him. He didn't move.

"Get them here." Majumbdahr closed the door behind us.

"What?"

"You knew I'd come."

"How did you do it?"

"You've been reading your own press releases. This isn't a Fleet base any more. We never would've made a hundred meters across a well-organized base."

Tonji stared at me, eyes jittery. And I suddenly saw that he was older. Lines around the mouth. Crow's feet webbing by the eyes.

"We're arranging a last ditch attack," he said with a thin voice. "Most of the good troops are seeking the Quam home worlds."

"That won't work."

"Not with bastards like you sucking up to them."

"You don't understand."

"What could they possibly offer you, Sanjen?"

Something in his face made me look away. The waters, the waters lapping, washing all . . . cleansing . . . renewing . . .

"Get them."

He called to another room in Central. He wanted to visit the woman and the children. Wake them up, yes.

We took a route without crossing a checkpoint; it was only two corridors away. In the enameled light Tonji shuffled along, the usual bounce missing from his step.

"You've been trying to keep all this together?"

He nodded. He didn't seem to want to talk.

The guard was muzzy with a just-awakened look when we got there. He unkeyed the door and we went in. Majumbdahr stayed outside to keep the guard company. I had been using my equipment satchel to conceal my air pistol. When I put it down Angela came into the room. Then the children.

"You're all right?" I said.

She stared, eyes wide. I asked again. She murmured, "My God. My God." Chark said, "Daddy." Romana just looked.

I turned to Tonji. "We're leaving."

He looked at me stolidly. He was an exhausted man and he knew he was going to die.

"The roof. You've got a copter there?"

"Ye . . . yes."

Somehow I felt as though I wanted to talk to this man, shake him into conversation. I had thought of smashing in that poker face a

thousand times. My skin was dancing. I felt a jittery joy. I was radiating energy. I wanted him to protest, to rage, to curse me. Something to push against.

After a moment I said, "Let's go."

* * *

We landed at the field's tower, a squat three stories of rough-cut rock. Chark was twitching with excitement; he wanted to hold one of the guns. Romana is younger but she seemed to know better what was going on. She kept glancing at Angela. They exchanged looks of numb terror. "What'll we do, Dad?" Chark said.

"Stay right here." I turned to him so the women were at my back. "Now look," I said in a low whisper. "I'm leaving you to take care of your mother and Romana. Keep them in the copter. Don't let them even open the hatch unless I'm outside."

"Hey, give me a gun."

"We can't spare one. We've got to take the tower."

"Are you going to shoot that guy?" His forefinger jabbed at Tonji.

"Never mind. I'm leaving you in charge here, right?"

"Right."

"We'll be back as soon as we can."

"Where're we going, Dad?"

I didn't know what to say. To the halo stars?

"Hey, let me have a gun?" Chark asked.

"See you in a few minutes," I said.

Majumbdahr was coming out of some of the shock from the dog business.

His arm was closing up from the seal-and-freeze. The blue swelling had gone down. He jumped on to the tarmac and watched Tonji get out. I noticed that Majumbdahr's uniform was mud-streaked and torn, and then that mine was, too. Finessing that by the officers in the tower wasn't going to be easy.

I turned to Angela. "Stay put."

"Ling—"

"We're going into the tower for a while."

"What will we do?"

"When?"

"After we leave here? The city is so terrible now, we—"

"Look, Chark is going to keep his eyes open and see that nobody gets into this copter. Right, son?"

"Gee, I sure would like to have a gun, Dad."

"I'm sure you would."

I jumped down. The three of us walked the hundred meters to the tower. Majumbdahr shouldered his flame gun. They could see us clearly from the plastiform top floor of the tower and we wanted to look like an ordinary patrol.

"Do you think I will keep quiet?" Tonji said between compressed lips. "That I will ask them to let you have a ship?"

"That's exactly what I think."

He looked at me. I gave him a very thin smile.

"I knew you had come . . . that was a Quarn maneuver, destroying the EDS net."

"A byproduct, that's all."

"So you think."

"I know rather more than you do about it."

"You didn't simply come back for your family."

"Quite so. But you tried to use them against me."

"I had to."

"Did you have to send me to Veden without mentioning that I'd have to go through the Flinger?"

"We couldn't find an on-line officer who would."

"Uh huh." We had reached the entrance. "Key us in."

Tonji hesitated and I stood there, letting him think about it. Then he fished something from his pocket and the entrance slid open.

Skeleton staff again. We nodded to the desk officer and went up the slideway to the tower. Tonji was the biggest frog in this pond and nobody got in his way.

There were three officers in the Operations pit. One looked up. I smiled. "Need a PQX for a survey flight."

Tonji was stiff, robotlike. They saw him and nodded. One punched in a spec and handed us an encoding. "Ready, sir." He scowled at my muddy uniform.

I nodded and we left. Outside by the slideway, Majumbdahr said, "Somebody's going to find that Lieutenant we left back there."

"I know."

"Even if we lift, they'll track us as soon as they hear."

"Any ideas?"

"Kill the power in here. We're cleared, we can lift. They can't track us then."

"Right." I looked at Tonji. "Where's the inload?"

"I don't know."

"We don't have time to look for it," Majumbdahr said, the words clipped.

"We could just shoot them," I said. I didn't want to, but I said it.

"We could."

I thought. Shit, what was I doing here? I was on the goddamn ragged edge, rubbed raw, nerves skittering like a caged rat. If I hadn't taken an hour of meditation in the jungle this afternoon I'd be wilted away by now. And now I was supposed to decide life and death for three Fleet officers who didn't know my name.

This was the nub, the end.

"Wait. You go in and divert them. Ask a question. Tonji, you hold the door open when he does."

Mamumbdahr gave me a questioning look. I waved him toward the doorway to the tower center. He opened the door and went in. Tonji held it ajar. I took the plastic-jacketed pancake from inside my shirt and ripped the sleeve. I wadded it along the top of the door, pressing the stuff around the edges. Majumbdahr's murmur came from inside. I finished. Tonji started to let go of the door. I sprang at him snatching at the handle. I caught it. I looked at him, lips drawn. He backed away. I was sure he knew what he was doing. But it could have been a simple error, yes. I shook my head. It was hard to decide....

Majumbdahr came out. I slipped the door closed. The plastic goo jammed into place. It fit snugly, sticking.

If they came out before we were clear, that was it. If not, we could tell them on the comm lines to stay put. It was the best I could do.

Out, onto the tarmac. Soft air caressing. Insect buzz.

We took the hundred meters at quick-step but my back burned all the same. Chark slid open the hatch. "Nobody came, Dad."

"Good." Into the cabin.

We shot skyward, banked, coasted. I set down beside the PQX the tower had assigned us. I got Angela and the kids into the PQX entry and sent Majumbdahr up to activate ship systems. Tonji stood at the entry portal, silent, watching.

"When we lift you'll alert them."

"I doubt it."

"Why not?"

"I won't be alive."

"Why are you so sure?"

"I can see your face."

"You always were a good judge of character, Tonji."

"Sarcasm from scum is—"

I raised my pistol. I thumbed it over to phosphorous shells.

Tonji backed away. I sighted at his drawn, pale face.

Time ticked by.

I remembered the three guards.

"It would be easy, all right," I sighed. "Come on."

He stumbled away toward the copter, following my gesture. He moved like a drugged man. Once he was inside I would give him a satisfying tap on the head and we would lift.

We reached the copter. Tonji looked at me for directions, then climbed in.

From the tower came a *crump*.

"Goddamn," I whispered.

In the tower one viewport was smashed to a blind star. Behind the plastiform windows of the top floor

flames leaped like children wanting to see out.

I jumped into the copter and clipped Tonji at the base of the skull. He pitched over.

I landed running. Something whizzed by me. I fired three phosphorus rounds in the direction of the tower without looking, more to cause night blindness than to dissuade anyone. Thirty meters, twenty—I stopped at the ramp to free the securing bolts. The air sizzled. A round ricocheted *spang* harmlessly off the ship.

I turned to the ramp. Something hit my arm and spun me around. A shattering pain leaped into my shoulder. I lifted my arm—lifted my arm—

Something was lying on the ground. A hand.

I staggered. Lifted my arm—

Halfway between elbow and wrist was a black stump.

Very carefully I bent over and picked up the hand.

Blood spattered the tarmac.

I took one step up the ramp. Two. So dark.

Shouts, a hammering.

Purple speckling in my eyes.

So dark.

Part VI

A rumbling, but-deep. Metal smooth, so smooth I glided down it ice palace skating taste of winter slick slick so white God why's the snow smell so . . . So. Mouth gravel-dry. *Skreee-hummm*.

An eye worked open.

Golden.

Biting.

I closed it.

But no—my throat worked, rasping. Force open the eye.

Gold needles sticking in it. Look to the side. Viewport rim. Squint. Oiled light. Blink. The sun. Sol burning, rose-red, twice as old as time.

"Ling?" Angela's soft voice.

"Ling? Try to sleep. We'll be there in a few minutes."

I was swinging a rock. So heavy. Swinging it toward the flame flower outside, shut it out.

"Ling! Don't move your arm! You'll jar the healant unit loose." Gentle pressure. I relaxed. "Your officer is hiding us somehow, that's what he said. So the radar below won't find us."

"Ah."

"Sleep."

So I did.

2

Time.

I floated up. Saw the ceiling. Knew I was aboard again. Flashed through dead pictures: *Farriken* hanging among the war stars, giant creamy ball. Zero-torque cranes and grapples. Clutching at our ship.

I plunged down the *Farriken's* axis tube, stretcher-strapped.

Rumble. Mumble. Drifting . . .

Lancing pain. My hand. Gone. I felt a hollow space somewhere. A lifting new freedom. Struggling damp feelings, moist, warm, a tree like a cloud of leaves, breathing—swift and darting images—sleek animals running sweating in the cloak of rising dust—throw—throw—dancing dancing mad—the curve of spear in flight—soft warm moist—left gone—the voices—low slithering—peering eyes—dancing

laughing—foam curls at the lips—voices—muttering without sense—hoarse breathing—blunt gummy—without words—something pinned—empowered—commands—cannot speak—dancing dancing mad and running—sweet slide of arms, legs—swollen leper moon—loose thunders—something wrenching deep—deep—inside, vast—rolling whispers *ah*—no words *ah* it was—shooting pain—opening—the voices, *ah*—fresh channels—I plunged through—seeping—now—moist—the fluid—filling me—warm lapping—certainty—left-hand right hand—voices voices—the hand gone—something slips free, *ah*—rises—rises—*ah . . . ah . . .* drifting . . .

And in the endless light and airy drifting I saw the halo stars oozing red across the sky. Rust and diamonds. A shooting pain. *Ah*. I raged. I stamped down, crushing stars. I shouted, voice hollow . . .

After a while they went away.

Sheets, so cool. A slight finger's press of gravity. *Ah* it was.

Angela's cool brow crinkling. Fingernails plucking at my sleeve . . . Sprinkle of yellow pain. I shoved a breath up through clotted lungs. Wheezed: "Got . . ."

Majumbdahr's voice: "I've got new data. When he's better . . ."

I twisted. "Got . . ."

"Quiet, now. Chemotherapy is cycling."

Time . . .

Angela. Then a long time later, Rhandra. Hair billowing as she leaned over me, prickly bright things running through me. Soft silibants. Ah, women. All rest and refuge do they contain.

Time. The tinkling of currents. Drifting.

Two eyes. Shadowed, lurking beneath a cowl. The figure was a dark galactic arm, dust-shrouded, hanging in space before the stars. Those shrouded eyes . . . Eyes? Or—two stars? Red-bright.

The Master. Lofting among the star rifts.

From his eyes streamed blood.

He loomed above me. I wrestled with the thoughts:

He had flicked a finger and tick I danced, strings invisible.

Met Rhandra.

Studied the halo stars. dutiful. His master's voice.

Run amok at the Madi's. Careening through it all.

He had turned me inside out like an old pocket.

Morning's humming nausea: his treatments, I knew.

I felt a surging in my head. No helpful waters came to calm the thoughts. No restful lazy lapping, dissolving all.

The vapor haze blew away.

I remembered it all now. All the kneeling and bowing and washing in the great liquid song.

Rage forked lightning-bright, yellow. We were *men*, Goddamn it, not . . . not . . .

I blinked. I sat up.

My left arm was a blue sheath. A bioadapt unit. Inside, I knew, my arm swam in womb-like fluid, healing. The hand was stored elsewhere, probably, awaiting a re-grafting.

"Rhandra!"

She appeared from around the corner of our quarters. "Ling, you're not supposed to be awake."

"Something woke me up."

"Well, I've tried to be quiet but—"

"No, something I was thinking . . ." I frowned. Dreaming? But the tightness in my muscles remained. Anger was boiling up from my unconscious. I felt myself caught in it, in the swirl of a blind tide.

I shook my head. "What . . . how are the others?"

"Fine. I met your family. Ling, I think we ought to talk—"

"Later. Later. I don't . . . Majumbdahr, how's he?"

"All right. He's working on something. Angela said he came to see you about some readouts."

"When was that?"

"Yesterday."

"Yesterday! Why haven't we Jumped?"

"We have."

"How far?"

"A short distance. A . . . parsec, isn't that the word?"

"Yes. Yes, it is. Fleet can still pick us up at this range, if we're unlucky."

"Well, Gharma said he didn't want to risk going further."

"Why not?"

"He doesn't understand all the changes you made in the Jump subsystems, he said. I think that was the right phrase." She looked at me, concern tightening her features. "Ling, I think you should rest."

"No."

"You almost died. If Majumbdahr hadn't gotten that freeze capsule on you—"

"I know. I know." I waved the subject away with a weak right hand. "My hand will live?"

"They say."

"How sure are they?"

She cupped a palm to my face. "They said the chances are good. Don't worry, Ling."

"Who's this 'they', anyway?"

"A doctor. They unsealed a vault to extract him. We didn't have anyone who could deal with your case."

I lay back. "I see."

"That's right, Ling. Rest. Sleep."

I blinked drowsily. "Sure . . . oh, would you do something? Go and ask Gharma for a readout of our Jump sequence. I'll need that to compute the long Jump."

"Rest, first."

"No, get it now. That way I'll be able to work on it when I wake up again."

She nodded and helped me lie back. I tried not to wince. Sheets of pain shot up my arm. That meant the locals were wearing off. But it also meant my head was clearing.

She arranged my pillows and dimmed the phosphors. Veden phosphors, I noticed—I was wearing my contacts again.

She stepped softly. I heard her click the latch on her way out.

For a long moment I thought of just lying there. It was clean and flat and the sheets smelled sweet as the wind. The Paradise Milton had scribbled about and never gotten.

But then the rage seized me again. The blazing star-eyes. I sat up. I pulled the covers away. No pajamas. Good; they would've stuck out under my robe, anyway.

I braced myself with my right arm. My legs swung over the side.

My arm buckled. I toppled backwards on the bed. My left arm shrieked at me.

I rolled over onto my right side. Painfully I worked myself upright by pressing upward with my hand and rocking my legs in synchronization.

Then I stood up. And sat down, knees buckling.

The second time I lurched sidewise and caught a deck chair for support. I breathed a little and tried not to think too much. Then I took a step. The mists inside lifted a bit. I stepped again and nearly lost my balance. I waited some more. Another step, wobbly but workable.

I reached the closet in slow motion. Fishing out my robes took time. By then I was concerned that Rhandra would return. So I hurried, and very nearly fell. I caught myself against the wall and just sucked in the soft, soft air for a while. Finally I found my Captain's belt and wrapped it around the quilted robes.

Time for a walk.

I made my way to B deck without seeing anyone. I began to feel stronger, steadier. Majumbdahr lived in a small staff officer's cabin. I wanted to see him where we wouldn't be disturbed, even by Rhandra. I hoped he would be in quarters. If not, I'd locate him on the inboard comm line and have him meet me there.

There was no response to my knock. I listened to the sighing of Farriken's air circulators. No movement inside. I used my Captain's key.

I was wrong. He was there.

He swayed gently in the air currents. Blood dripped steadily from



him and spattered red the deck.

Mahesh Majumbdahr had been trussed expertly. Knees bent. Ankles bound. Wrists wired and oozing blood behind his back. He hung face down. Bright scarlet threads laced him. Flexible tubing linked knots at wrists and ankles. Ship's cord bisected the tubing. The cord looped through the air duct overhead.

Blood now filming over to a muddy brown made an X in his chest. It sliced his coverall and cut deep into the abdomen. His face—I looked away.

I recognized this vaguely from my reading of Veden history. A ritual Bengali execution. Usually performed with a shortsword. In ancient times it symbolized a necessary death, a sad but unavoidable passage.

I stood and looked at him a while. Then I began a search. There was no sign of a sword. An empty fax folder yawned open on the floor; a few books were disarrayed. I found a small wire cutter and cut the ship's cord. I caught the body as it fell free. Pain lanced my left arm. The body slipped away from me and sprawled. I covered the face.

From the blood clotting I judged he had been dead at least half an hour. With head wounds the brain damage from oxygen loss would be extensive already. No chance to save him.

I punched on the comm. Rhandra answered on the second buzz. "Ling! Where are you? When I—"

"Are you alone?"

"Yes." I gave her the cabin number and asked her to come.

Alone.

I sank down the bed. I waited. I watched the lake of scarlet around him scum over with a ruddy, used brown. This was no longer Majumbdahr, only a butchered side of meat.

A part of me skittered away from this room thick with sullen air and I remembered the walks we'd taken together, an impossibly long time ago now. We walked through slippery mulch of packed leaves, along chattering streams. Ferns. Soft stands of scented weeds. Rasping briars. Our boots thumped in the hush of woods. We talked. We worked up the dry, cottony taste in the mouth which chilled water cuts as a knife. The valleys of Veden's great plateau cupped us beneath a spitting blue sun. Time hung still and silent in the fragile air. And as this memory hazed my mind I lay back on the bed and knew at once that I hated this artificial place now. It was a warren of cushioned sounds inside a metal box, an artifact I had memorized into a profound disgust, a craft whose prime purpose was an Empire where both the police and the poor were polite. Yet on the other side was, inexplicably, the thing lying in its own muddy pool . . .

Rhandra's rap startled me. I creaked up and opened the door.

She said and did the things I'd expected. It all went by in a curious milky green light. Words slid into more words. There was sand in my eyes. Gritty bags were pulling down on my eyelids and blurring into a drone Rhandra's sentences. A hand shook me. I sucked in air. The light cleared a little.

"Look . . . for . . . stim."

"What?" she said. "Oh."—and went into the small bathroom. Time slid along. A prickling feeling in my face. "Ling!" Another slap. "Here—" Hiss. Cool spot on my wrist. She took the stimulant injection tube away. I blinked. A faint tingling seeped back into my body. In a moment I felt somewhat bright and clear again.

"God, I'm weak."

"Of course. And to find this . . ."

We sat for a moment. "I'll call," she said. "We'll get some help."

"No."

"Well, whoever did this must be—"

"No!"

She sat silently. I struggled to think clearly. I noticed something new on the bed. "Where'd those come from."

"What? Oh, those must be the readouts he wanted to talk to you about. Plus the other things in your Captain's input slot on the bridge."

"The fax folder." I gestured. She handed it to me. It was identical to the empty one lying on the floor. I opened it.

"Ling, I don't see how you can sit there calmly opening your mail for God's sakes, with—"

"Quiet." I flipped through the faxes inside. "I wonder . . ."

"What?"

"This is the same type of fax folder as that one. Maybe Majumbdahr had two copies of something, and left one in my slot so I'd get it when I was able."

"Oh. And the other copy . . ."

"Somebody took it."

Rhandra's face was compressed

and rigid. She kept looking back over her shoulder at the body.

"These are faxes of a correlation analysis. Majumbdahr wanted to do a better study of the Veden mass detector data. He left it as an available-time job for *Farriken's* computers."

Rhandra looked at me apprehensively. "Ling, I really do think you're too tired to . . .

"Come on." I got up.

"Where?"

"Just come on."

I locked the door behind us. I walked as quickly as I could through the curved corridors, watching for anyone else. Most of the crew was probably stowing the cold-sleep vaults; securing them adequately in the axial pods would probably take a full day. We stopped at an officer's cabin I chose at random and I clicked it open.

Inside, I spread the faxes on a narrow bunk. Majumbdahr had used the satellite data to get a refined parallax fix on mass and velocity. I pointed at a display fax. "It's big, all right. About a tenth Jupiter mass. Now, the velocity . . ."

I checked it.

Checked it again.

"What's wrong, Ling? Why are you looking that way?"

"This thing—whatever it is—will hit Jagen. Not Lekki. Jagen."

"I see," she said, not seeing.

"He integrated the trajectory out. Look." The dashed line of the projected path swerved neatly around Lekki and arrowed precisely into Jagen."

"Why is that so important?"

"It's just about impossible. Lekki has more than twice Jagen's mass.

Its gravitational potential well is much broader. Any random fragment zooming out of interstellar space would have one chance in a million of hitting anything. Even if it did, Lekki is much more probable a target. But Jagen!—a little dot whirling around at near-light speeds? Impossible."

"But it *has* happened."

"Yes." Suddenly I remembered the Master's voice long ago: *The ancient Quarn left giant devices . . . they could move a planet through Jump space . . .*

"When it impacts, Jagen will shred that mass with its tidal forces. Rip it to atoms. Then heat it up. X-rays. Gammas."

I didn't need to check Majumbdahr's faxes to know that Veden would be within the cone of emission. The planet would fry. And the ramscoops, irradiated beyond use. The storehouse of the Empire, burned away.

"What will it do?"

"Ever watch a time-lapsed 3D of a supernova? This is like a pocket edition. The radiation will fry Veden. Probably kill all higher life forms."

"But Ling—"

"I know," I said bleakly, watching the horror crinkle her eyes. "And I know who caused it."

"What. . . ?"

"The Quarn."

"I don't believe that. Neither do you."

"Ah, but I do. Rhandra, the Master didn't want Majumbdahr and I to stay down on the surface, to be out of touch. He wanted us around for our regular session with him. Balm for the mind. Those wonder-

ful washing waters. That's how he has managed us like a Punch and Judy farce from the beginning."

Her face became stony. "No, I . . . I . . ."

I watched her struggle with it. "Rhandra. I know you're confused by this. I know something of what you feel. I felt it, too."

"But Ling . . ."

"I want you to help me. I'm going to go see the Master. Perhaps I'm wrong," I said, knowing I damned well wasn't. "We can only find out what is behind all this by speaking to the Master."

"Yes . . ."

"But we must be careful. Whoever killed Majumbdahr can do the same to us. So I want you to help me. Will you?"

"Of course. But . . . the Master . . ." Her face twisted.

"I know. We—"

The comm speaker sounded a soft, persistent beep: an all-stations message.

"Officer Gharma respectfully requests the Captain's presence in the Master's rooms. Officer Gharma respectfully . . ."

I listened to it repeat five times. A slow, wan smile spread across my face.

"So it's Gharma."

"Why are you so sure?" Rhandra murmured, her voice reedy.

"He wouldn't call if he hadn't already checked our quarters. And if there's ship business, why not summon me to the bridge?"

"Well, he might—"

"No. No, it's Gharma. He has a taste for the ancient Veden practices. And there is something in him I have always sensed."

"Well . . . what shall we do, Ling?"

"Do? We go see Mr. Gharma, just as he asks."

3

We went two corridors laterally, along the gentle curve of the ship, before I caught a flicker of motion out of the corner of my eye. A head jerked back around a turn in the hallway.

"Run," I said. Rhandra's shortbreech gave her ample room for her long legs; she easily outdistanced me. I puffed along, thoughts racing. "Left, I called. We turned and there ahead was the dim gray light I sought. The priests had left a third of the B deck phosphors untreated; they gleamed with Sol light. Vedens with adapted eyes could make their way here, but they could see no further than fifty meters. I popped my contact filters into my palm.

Rhandra slowed. "Where should we go?"

"Not back to our quarters, that's certain. This way."

I soon found it. The emergency arms locker went *ting* and eased open beneath my Captain's encoder. I fetched out stun guns and laser pistols, hitched them in my belt. I gave Rhandra a stun weapon. I showed her how it worked. "Don't even aim it at anyone unless you're going to use it."

"What setting shall I use?" She fingered the dial in its butt.

"Here. Stun. It won't kill."

"But if we need—"

"Come on."

The cushioned floors of B deck

were the thickest in the ship. They muffled our running. I cut over three corridors and peered around. There—a bulging green color-coded hemisphere, down a short passageway.

It clicked open, revealing a tangle of power lines, connector boards, microswitches, alternate circuit elements and inloading sequencers. I studied them.

The routine shipboard elements disconnected easily. The manual override net took more time. I took a cutter from the tool wall inside and slashed crude gashes in the plastiboard.

The lights around us faded, pulsed once and died. A rattling alarm spoke nearby. I cut some more and it stopped.

"Ling, I can't see..."

"That's the idea. I haven't lived this long by walking into situations with long odds against me."

"What does it matter if we're all in the dark?"

"Those small round splotches—no, sorry, you can't make them out, can you?"

She squinted. "No."

"Those are emergency phosphors. They're running lights that go on when central power fails. *Farriken* has a separate power source for each deck."

"The Priests didn't paint them with Veden phosphors?"

"They didn't know what they were. The emergency system is just bright enough for an Earth native to see by. But to you they're emitting in the wrong part of the spectrum—too red."

"All the Veden natives are blind now," she murmured slowly.

"On B deck, yes. That's all we need."

But how long did we have it?

The bridge officer was busy supervising storage of the vaults, I was pretty sure. He was probably frowning at his readout panel right now, trying to figure why the B phosphors should fail. Did he have an extra hand who could come down and troubleshoot, carrying a hand flash?

I started along the corridor, leading Rhandra.

"Where are we going?"

"Tramping into the vineyard where the grapes of wrath are stored," I said. My head had lifted lightly from my shoulders and floated a meter high.

"What?"

"A snippet of ancient culture. Non-Mongul."

Through the curved lattice, all padded and restful: officer's country. Near the Master's suite the warren was more complex, for an added sense of isolation from the rigid pattern of shipboard. This made it easier to approach, since no one could hope to hear us.

I saw the first priest two intersections away from the Master's area.

He stood with his back turned, arms raised as though talking into a wall ship's comm. As I watched he slammed the receiver down, felt his way a few meters along the wall and stopped. He had just found that the comm ran on the same power source as the phosphors and wouldn't work either. And, being untrained, he didn't know an emergency comm station was recessed in the wall forty meters away.

"Ling, I . . ."

I tugged her back around the corner. "What?"

"I've got to ask something. How long will it be before that . . . thing . . . collides with Jagen?"

"About ten days."

"Then there's no hope of stopping it? Or saving people?"

"No. Or . . . wait . . . We can send a signal. Maybe they can get deep enough underground." I thought. "Yes, that's right. Ten meters of dirt would shield them."

"But there's no hope otherwise?"

"No."

"Then let me go to the bridge. I can tell them. Before we . . . see Gharma."

I grimaced. "I know how you feel, Rhandra," I whispered, "but you won't be safe on the bridge. Gharma wouldn't leave it uncovered. If you appear there they'll stop you. Kill you, probably. They don't seem much interested in discussions, not when there's a shortsword handy."

She looked very solemn and nodded. Things were moving too quickly for her. Hell, I thought woozily, *they're moving too damned fast for me, too.*

We cut to the right and circled around the priest. I spotted three others, each at an intersection. They had taken up positions roughly equidistant from the Master's suite. They blocked all paths to it.

But they'd made a simple tactical error. They were too far apart. The intersections were all over fifty meters from each other. In B deck's hushed corridors that was more than enough to isolate them. They'd formed their net in virtual darkness;

given time they would probably correct it.

"You're going to follow me at a few paces behind. Here—" I reeled ship's cord from around my waist. I'd taken it from the emergency locker. "You can hold this as a guide. If the Veden phosphors suddenly go back on you'll have to drag me out of sight. I'll be blinded even worse than you and the priests."

I paused. Gharma might have sent a man to the bridge, letting him feel his way out of B deck, with word to bring flares or anything else that emitted the Veden spectrum. In that case aid might come any second; there had been enough time.

But if Gharma was cautious he might well keep all his priests with him for protection. He could wait me out that way with less risk.

Which had he done? Flip a coin, Sanjen.

"Damn," I fretted. "Look, I've got another idea. I'll lead you to almost within sight of one of the priests. These stun weapons are too noisy; the others will hear. So I'll double around and come at him from another direction. Wait about a minute, then make a small noise. I'll rush him."

"What sort of noise?"

She looked suddenly frightened. Well, so what? I was, too. But I was more angry than scared, or else I wouldn't be here.

"Just a few words. A question. Ask him why the lights are out. He'll probably think you're just wandering around in the dark."

"I am."

"Quiet." We edged along the

passageway for a moment until I could just make out a priest around the next corner. "Here I go. Count the seconds in your head."

I raced around to the other corridor. To me these halls were pooled with wan reddish light, dim but enough. I crept forward until I had a clear view of the priest's flowing *maquanan* robes, and stopped. He was shifting uneasily from foot to foot. Unnerving, to stand within easy laser shot of an armed and still have to force yourself closer. Several times he looked directly at me.

I froze. His gaze drifted on without pause. Precisely how dim was this light to him?

Step, wait, step, wait.

My left arm spoke with a low, pulsing ache. I inched forward, handgun covering the priest. A thousand years ago I had sat in a restaurant with Mahesh Majumbdahr and talked of reverence for life, respect for living creatures. Now I was preparing myself to kill a man simply because he blocked my way.

Faintly: "Why are—"

I ducked low. Lunged forward. The priest turned, robes swirling, his pistol coming up, eyes shifting uneasily as he tried to locate Rhandra's voice.

"—the lights—"

At the last moment he did. The pistol leveled. He squinted down the V-and-blade sight. Finger squeezing—

"—all out?"

I hit him with a boot heel in the shoulder. It was a high kick I hadn't tried in years. I caught; he staggered sidewise. His finger slipped from the trigger.

Right foot back to the deck. I followed the weight shift through with a short chop to his neck. Breathe out, focus down, turn—

I twisted, caught his solar plexus with my left elbow. A biting pain shot up into my shoulder.

Wind whooshed out of him. I moved in, butted him aside—winced—and snatched at the pistol.

Fumble, fumble—I suddenly thought that a laser beam could be seen quite easily by Veden eyes, alerting the priests—I got it.

I clubbed him with the butt. He sagged to the deck.

I froze. No sound. The hollow sigh of air circulators.

I dragged the priest into a cabin and locked him in. When I went back for Rhandra she was jittery, but she listened carefully to what I told her.

The Master's suite..I cracked the door ajar. Silence. We slipped into near-darkness. A dim emergency phosphor glowed red beyond the antechamber.

Suddenly a chant rang out. Voices joined it. A singsong wail echoed over us. Tapping drum, chiming cymbals.

The beaded curtain before us swayed and rattled in currents that bore the sweet tang of incense.

We slipped through.

Four Lengen priests sat in zazen position before the Master. None were armed. The wavering music spun on. On. On.

And stopped, as though sliced by a sword.

"Leave us now." The Master turned his cowled head toward us.

"I believe we have some business."

"It awaits you. Outside."

"You'll get no help from them."

He paused. "Leave us now."

Of all receptions I had imagined, being brushed off wasn't one of them. I sat, and gestured Rhandra to do the same.

"Gharma has erred again." His voice rolled out, deep and somber.

"Because those priests didn't get us?"

"I knew it was you when the illumination failed."

"I expected Gharma here."

"He is dispatched elsewhere. To complete the circle."

The priests began to murmur a slow rhythmic chant. We talked over it. "More murder?"

The Master clasped his hands and said nothing.

"Why did Gharma kill Majumbdahr?"

"We only hastened him by an hour."

"To stop him from warning Veden?" Rhandra said abruptly.

"In part. My hand rests only lightly on such matters."

"Looks like a dead weight to me," I said bitterly. But something restrained me from approaching him. I sat. "Why kill the Vedens? An entire planet?"

"A point of . . . there is no word. Let this suffice: millions of your years ago we caused the neutron star to wind inward. We did this in the last phase of . . . matter shaping. Then we retreated to the next of the . . ."

"The halo stars."

"You would call them so. They are true center. The sum."

"Then why don't you damned well stay there?" I spat out.

"A star does not ask the galaxy why it spins."

"I am asking."

"So." He joined in the murmuring warm chant for a moment. His great head bowed. Incense sweetened the air.

"We returned this last time to the disk. We looked upon our works. The neutron star was infested. The ancients timed that star for *our* use. You had begun to spread. To have festered so, to take our works and turn them to a purpose we had planned for ourselves . . . We knew then that the legacy we had planned was rotted. Spoiled. You—our children—were now rivals."

"How?"

"You violate the Precepts."

"Piss on sour Precepts. Why should they apply to us?"

"One always knows one's children better than they know themselves."

"What. . . ?" Rhandra asked.

"*We made you,*" His voice boomed. "Made hunters, learners, from eaters of fruit. Hormones. Mating ritual. Family grouping. All bear our imprint."

"No . . ."

He shook his head wearily. His voice floated across to us. "We do not know why the great old ones did this. A last groping. For a vision. I do not *kenne* . . . it lies to us to right the errors."

"By tinkering with us?" I almost shouted. "Your damnable Plague? The men you've killed—or made me kill?"

"To complete the circle."

"How? Was it that business I studied about left hemisphere versus right? You had me read that, didn't

you?"

"I erred. It vexed you, to direct your knowledge in these paths. I see now I erred often with you. My first decision was correct."

"The winged man?"

"Yes. I saw you would be a threat. My charge was to bring the sickness to Veden."

"You caused the violence. The riots."

"A facet of the design. You might have interfered."

"So you ordered me killed. What made you stop trying?"

"The craft that brought you to Veden sent a message packet."

"That's customary."

"Gharma read it that evening. Too late for me to stop the winged follower. It told of the Patanen. They were to assemble on Earth. I saw we would need you to take us there when the time came."

"So you gave me a stay of execution."

"Remember, when you think these harsh things, my aim?" Hand passes. A misty low voice.

The priests. Their candences swelled in the dry light. A sea's green sameness washed the room. Metallic flutterings veined the air.

A distant twinge from my left hand. I willed it to silence.

"I . . ."

"To seek the rightful stations for us all. Bring the essence in us to rest."

"But we . . ."

"We share a destiny."

Swaying, I pondered. "What paths lie open. . . ?"

"There remains only the Path of Last Things."

"The Patanen?"

"They were the remaining part of you who would survive. It is a measure of our fall that only with difficulty can we snuff out our ancestors' dark legacy."

Chiming. Swimming in the waves of the chant. "That is our station?" The Master's hand moved over a small black metal object.

A sadness welled from him. His great eyes transfixed me. "I speak to the tension in you. It is the impurity. Without it you would have been a fitting testament to us. We know you in the core. Where the animal mind gropes for exit."

"I . . ." Drifting.

Arm aching.

I struggled to hold on to something.

"It is the final act. To earn my Walking."

"No . . ."

"I am charged to this task. Others of us labor on your distant worlds to bring about this consummation."

"Ah . . . I . . ."

"We erase the errors made by our passing. We leave no blemish smudged upon the galaxy."

The waters, they encased me. Their soft lapping swept clean the abiding tension I felt. Tapping of drum. Flickering ghost images. I struggled against the current. They were warm, so warm . . .

Humming. Humming, the wailing singing waters washed over me—

My left arm. Sheets of pain lanced up. Clouds thinned.

Left hand. Right hand. Voicesvoices—hand—swelling tension—

Something within me clenched my fist. My hand—

Orange carved the night.

The Master toppled. He fell stiffly, surprise frozen in his depthless eyes. A red splotch stained his barrel chest.

Left hand spoke. Right hand answered. We would not go meekly into their vast night.

The being who had brought me such comfort as I had never known sprawled, eyes open to a final blindness.

The rasping sound was my own crying.

The room bulged and melted and ran down my face.

I lurched away, out.

3

On the bridge.

I fought the deep trough of sleep. The bridge swelled, paused and then collapsed, like the lungs of a great animal.

"Stim," I croaked to Rhandra. She pressed the hissing spergent to my arm.

"Gharma. Where's Gharma?"

"He is suited up, working in the tube, sir." The bridge officer, Hassat, blinked at me.

"How long?"

"Nearly an hour."

"With a team?"

"He took some priests."

"Ah." I thought. The bridge went *peep* and *click*.

"Are all the priests armed, Captain?" Hassat said. He was worried. When the power returned to B deck he had gotten a call from me to send a squad. There had been shooting. Two wounded, one dead. All this, and he didn't understand what

it was about.

"I expect so."

"Sir, if you want me to go after him . . ."

"I do. And I'm going with you."

* * *

We were in the suiting room when the fist of Shiva shook the ship. It slammed me into a bulkhead. A loose tool cracked into my helmet. I staggered, fell.

The viewport into the axial tube spanned ten meters in the ceiling of the suiting room. I peered up at it.

'Silently, a waterfall swept by.

"They've blown the tube wall," I said over suit mike.

"Bridge here, Captain!" a metallic voice rattled. "We monitor a seven meter diameter incursion in the tube. It's filling fast."

The greenish fluid gushed by the port, churning. Bubbles danced.

"Where?"

"Fifty-two meters above the retainer, Captain. Aft."

My team was coasting up toward the viewport, gaping, apparently uninjured. I let myself go slack, ignored the sleetling ache as my left hand tired to talk to me, and thought. A picture of the *Farriken* hung in my mind's eye: a spinning ball. The axial tube lanced through it. All turned, making centrifugal gravity and stirring the reaction fuel that filled the ball. The axis was a thin tube where it broke the ball's surface, but at the ship's center the tube bulged: decks A through K. I was in the innermost part of the bridge. Where the bulge tapered down was the retaining sheath. It supported the *Farriken*'s center

against the pressure of the reaction fluids. Further out, beyond the retainer, sacks of cargo hung from the tube, immersed in the fluids.

Where was Gharma?

Near the hole he'd blown, probably. Not in the tube—as the watery colloids rushed in, the currents would've smashed him to ketchup. No, flooding the tube was a diversion. It gave him time. We would have trouble making our way long the tube. The delay might be vital. So . . .

There was no place else to go. He had to be outside the tube, in the reaction fluid.

I sighed and found I had closed my eyes. It was restful here at nearly zero g. If I could sleep a bit, everything would become clear . . .

I slammed my left arm into the deck.

Agony.

The voices. They woke me.

Why flood the tube? It wouldn't disable *Farriken*.

No, Gharma was on his feverish way to something else.

"Hassat! Into the lock."

The Veden phosphors gave the rushing waters a greenish cast. The rippling currents had become sluggish.

"Tube is filled, Captain," the metal voice rang.

I hitched on a tool belt and snagged a laser sidearm into it. "Cycle us in," I called.

Hassat and the men listened to my conjectures as the air pumped out. The greenish fluid frothed in and stilled. I waved us out. We swam like the first fish, awkward and bulky. *Ping*, pressure balancing.

Aft, along the tube. Machines, pod equipment, grapples—they bobbed in the currents set up by rotation of the tube walls. The men swam faster than I could. They were earnest and devoted followers of the Master, unaware of how the alien had used their own evolution against them. I had sent Rhandra to search the Master's suite, remembering the black device in his hand, to find polytonal inducers, subliminal flicker screens, a host of devices. Probes into the depths of our competing three brains. Paths to enlightenment, surely; I knew that. Paths to a prison, just as certainly.

These men would follow my orders despite their confusion. And in time, as the tinkering wore off, as it had for Majumbdahr and me on Earth, they would return to whatever it meant to be human. Merely human.

We thrashed on. The section numbers coasted by. 16 H. The tube necked down here. Collars of steel yoked the spot: the retaining wall. Here the storage sacks began. Their access ports punctuated the tube walls at regular intervals, receding into the murky distance. Swimming here was not much different from negotiating in air, since there was no gravity. But normally one could see from one end of the tube to the other. Now all faded into green depths. I felt sluggish. The waters plucked at each motion with liquid fingers.

"Slow down," I called. Foxes to the hunt.

Docking equipment swung lazily ahead of us. I peered, squinting. There: a ragged tear in the thick organiform. An explosion had ripped

through from outside.

Something tugged at my attention. I turned, studying the tube. The others surged ahead toward the tear.

It was small, innocuous. A gray patch clinging to the tube wall.

I swerved and kicked toward a grappling module. "Cover!"

I snagged the edge of the module.

Crump. A muffled jolt. Frags spun past me. I hugged the module like a lost love.

Crump. The module bucked, began to drift.

I hung on.

A corporal coasted into view. His back was smashed.

I swam toward him. His suit life indicators read zero.

Two others floated nearby. Dead, all. Bubbles oozed from their suits, filmed in red.

The limpet mines had sprayed the area with shrapnel. Neatly timed. Gharma must've been able to see our approach. How?

I rotated, fanning the waters. The viewports. They looked out on the cargo sacks, to aid in loading.

"Captain." Hassat appeared from behind a quantat casing. "They're all . . ."

"Right." I thrashed over to a viewport.

Lamps glowed blue in the murk.

They were inside a sack. It hung down, a teardrop ballooning away from the tube. Dim figures moved inside. It was the sack nearest the retainer.

I watched, thinking. The figures seemed to be sitting on top of some coldsleep vaults. They were performing a ceremony much like the



Master's. The Hour of Last Things.

"If there are more mines in here," Hassat began, "We should—"

"Right. Out—through the hole."

I pushed away and kicked awkwardly. Cold seeped into my bones; the reaction fluid was a colloid to prevent its freezing at the low temperatures it reached in flight. My suit thermos cut in.

We reached the ripped wall and I gingerly pulled myself through it. I backed out, groping with my feet. My magnetos purred, seized. Boots clamped down to grip the ferrous strip running along the outside of the tube. I swiveled out and stood upright.

I took a step. *Click*: magnetos clutched the metal. Hassat followed.

The sack flared mushroom-like forty meters away. I could make out Gharma now. He made ritual hand passes. Their lips moved. Chanting. Their rocking rhythm cast shadows in the blades of light that cut shafts down into the cloudy fluid. Beyond, along the axis, the milky bulk of the retaining wall.

We stepped carefully forward. It was like walking along the top of a vast cannon barrel toward a bag of blue light.

"Look for the power plug," I called.

Step. Step.

"There." Hassat knelt on the curved organiform. The color-coded cap swung out. I unreeled the cord for my suit power. He plugged it in.

I snapped it into the butt of the fan laser in my tool belt. It was intended for broad area heating, operating in air. I had no idea what

it would do in a liquid.

"Try your hand gun," I said.

Hassat fired. A ten-centimeter bolt leaped out. Steam burst white in its path.

"Not much range," he panted.

I cradled the fan laser. "This one may—"

A dull thunderclap.

I jerked my head up. Beyond the sack a yellow ball glowed for an instant. It guttered out.

"Shit," I said. "They've blown a hole in the retainer."

A tide brushed at me. Growing stronger.

We both stood shock still. Debris from the explosion caught the blue light and then swooped back toward its center, sucked in.

"Captain!" the tinny voice rang. "Massive incursion in the retaining wall. Bridge is flooding."

Gharma was going to drown the whole ship.

"Try to deflect the stuff," I said numbly. "Stack furniture. Run it down the nearest ramp."

"Sir, at this rate—"

"I know. Look, send some more men after us. We can't do much by ourselves."

But I knew that by the time help arrived the fluid would have caused vast damage inside Farrisken. We were far from any star. Immobilized, we would never reach a port.

Something bumped against me. It was a ribbed drum, probably unmoored by the first explosion. I watched it accelerate toward the gaping hole in the silvery retaining wall.

"Sir, we've got to—I can't—"

I shook myself into alertness.

Hassat was wobbling, one foot free. I suddenly realized that the current was pushing me forward.

"Don't try to walk," I called.

"But we have to—"

"Duck!"

Another drum swooped toward us. It slammed into the tube wall, sending muffled vibrations up through my boots. When I looked up it was vanishing into the jagged hole in the retainer.

I braced against the surging currents. My arm stung and throbbed. I hunched down to present less drag against the stream. My boot broke free. I slapped it down again, rocking, pulling on the power line for support.

Wan light. Murky motions.

What had been the Master's plan? To kill us all? Gharma's sword lifted high, coming down with ritual grace on the necks of the Lengen priests. Chopping. But how were the rest of us to die? Or . . .

Floating. Warm and lazy.

The waxy light . . .

The voices murmured. Tongues speaking without form, of days before we became encased in words . . . cutting across the filmy bonds the Master had laced around my bicameral mind, lefthandright brain, ancient . . .

But the voices faded . . .

My head buzzed. A fine weakness washed over me.. It would be so fine to fly in this swift breeze, to spread wings and loft through it. To skim by good Gharma and his madman chant, *consider the waters in their ways*, yes, give a last wave and zoom past, singing my own private song. Then a last gyre, banking and swooping. The tinkling

rapids would laugh with me. Sing the war galactic, Ling. Strut a time on this final stage. Comes the high dive. White foam. Zip, and you're through. Back on the bridge, Captain of a Starship all spattered with gold. Epaulettes for all.

Let me go.

Let—

A boot slipped.

I twisted to bring it back.

The other *click* broke free.

I reeled out the power line. Gauze clouded my helmet. Air rasped raw in my throat.

Battering, battering, the current swept me down.

All these years riding the high vacuum . . . never thought . . . it would come by drowning . . .

My right hand twitched. The fan laser blazed. A beam orange-hot shot out in front of me. Steam jacked it. Cotton streamers belched back toward me. I felt it punch me in the gut.

Turning—

Flying—

I rolled my eyes up, searching for the blue mushroom. Heels looping over—

I arced the laser beam around, letting the steam jet play against me. It buzzed in the cold, watery hand that clasped me.

Punched me.

Again.

The sack loomed. I thrashed uselessly. Fire the orange plume. Wait. Fire agin. Fire—

I thudded against the fat blue balloon. I released the laser; it was still clipped to my belt. I snatched at the folds of the sacking.

Got a grip. Swung down.

Boots clapped to metal. I leaned

against the billowing sack, taking shelter from the current.

I peered in. A blue lagoon.

Gharma's head jerked around. Eyes widened. He started scrambling over toward me, calling to the others, mouth awry.

The idea hung before me, glimmering.

I thumbed the fan laser up to peak power.

Gharma saw my hand move. He snatched at his robes, trying to drag a pistol out.

I braced myself and pointed the fan laser at the bottom of the sack. Inside, priests scrambled over the vaults. One knocked over a blue arc lamp. It smashed into a vault and winked out.

The orange line leaped out. I fanned it across the base of the sack. The organiform crinkled, turned brown, then black. I felt a flash of hot pain in my left arm. I looked up. Gharma's laser was cutting away at my suit. Metal beaded and sputtered away into the waters.

But—

Directly in front of Gharma, where his beam lanced, the sack blackened. Broke. The fluid smashed into him, driving him against the far side of the sack.

I chopped at the base. It gave. The sack lifted under the fractional tug of centrifugal gravity. It rippled. Inside, priests tumbled in panic. The Hour of Last Things was coming a bit early.

The sack wilted. The current caught it. Bubbles belched out, rose.

It began to drift. The sucking hole in the retaining wall dragged it down. Inside, faces: mouths

stretched open, hands clenched, eyes frantic.

It struck. The vaults jammed in the hole.

Soundless, the sacking folded over them. Air dribbled away.

The sacking clogged the hole. Flow ebbed and stopped. The plug settled into place.

So many. Majumbdahr, the Master, now Gharma. And so many more. Sleep's dark and silent gate . . .

5

The bridge was a foul mess. The colloidal fluid reeked of oil. It slopped at our ankles. Hassat—who had hung on to a strut the whole time, and lived—organized a team to flush out the ship.

K, J and I decks were submerged. Multiple subsystem failure. Two crewmen dead. My console half red and winking. Everywhere, equipment dripped.

I thumbed my readout screen to activity. Where would we go?

A home away from Rome, that's what we needed. Far from Fleet. A comfortable G-star with room to let. Amid *Farriken's* dry catalog of facts and numbers there was surely a clue. The galaxy was open. We had fuel, reaction mass. We would explore.

The message to Veden had gone out moments before. Now my energy seeped away and amid the lapping waters I lounged, watching the cleanup crew with sandy eyes.

Time for another message. Yes.

I switched through Comm. "Fleet Central, urgent." I blinked, squinted, rummaged for words.

"This is Ling Sanjen, late of Fleet. I'm serving notice on you, and on your damned Empire. Do what you can about the Quarn. Then forget this war. The Quarn will vanish anyway. They're busy cutting their throats right now."

A crewman splashed by. *Lapping waters* . . . The sound no longer had power over me. Music, I remembered, reached into both the limbic brain and the neocortex. It triggered the emotions in one, the analytic of order in the other. Mathematics could do that, too . . . delicately touch the limbic . . . music sliding into number . . .

I shook my head. We were no simple assembly of "the seat of reason", "the seat of emotion", tinkeroy parts. A man was more than a mere man could know.

I grimaced, feeling things shifting inside my mind. Whatever fine-grained work the Master had done on me, done on us all, was coming apart, leftbrainrightbrain all scrambled now, returning to our own human equilibrium.

"Look," I said, "what we never understood about the Quarn was that this war was a last task for them. They had to wipe us from the slate because we were their worst failure. A symbol of their decline. If you go out to the halo stars I think you'll find their works, their art, their libraries, all carefully preserved. All the things they wanted to be remembered by. Libraries—not us. They never understood us. And they were so sure they did . . ."

I coughed. My throat rasped. "Listen, Fleet. If you're smart

some of you will survive. And if you do my grandchildren may run into you sometime. Watch out if they do, though—you won't understand them. They're going to be like me."

I clicked off. I chuckled, imagining what Tonji would think when he heard that. Ling the madman, yes. Maybe someday I'd be rheumatic and respectable, but not now.

I'd gotten married to Fleet and Angela about the same time. Now I was divorced from one, but the easy analogy told a lie; Angela was a person, not an idea.

Rhandra splashed over to my couch. "I'll help you back to our room." Her face, lined with care, seemed much older now. Yet the light still glimmered in those eyes. And there were rich years for both of us. For all of us.

"No."

"You *must* rest. Your arm—"

"No. I've got one more thing to do."

* * *

Things happen, that's all.
I made the way down alone. Oily
puddles glimmered in the dim light.
She answered the second knock.

I went in and sank down into a deck chair. From the next cabin came the scuffle and chatter of Chark and Romana.

I put my face in my hands and pulled the sagging flesh down, up, rubbing my eyes.

I raised my head.

She looked at me expectantly.

"Angela," I said. "Let's try to talk again."

The DALMATIAN OF FAUST
Charles
Sheffield

What more can we say? Here's Waldo!

EVOLUTION NEVER STOPS. It's a continuing process, going on today. Many people find this hard to believe and point out that strength, intelligence, speed, and courage now seem entirely useless. That may be true—one of the depressing things about evolution is that you can't be sure which elements dominate the selection process, here and now. And if you did know, there is absolutely nothing that you could do with the knowledge; either you have the right properties for genetic selection or you don't.

The thing that prompted this train of thought was a visit, a few minutes ago, from my business partner, Waldo. He was wallowing in newfound affluence, wearing expensive clothes and sporting—most uncharacteristically—a glamorous female on each arm. He looked over the deal I'd found, promised me in lordly tones that he would think about it, and swept out. I have this feeling that Waldo, against all logic, is being favored by evolution; for, as any dinosaur will tell you, evolution does make mistakes.

Waldo's ride to fame and fortune got off to a very shaky start. He had been arrested, lumbering around the outer perimeter of Chryse City late one night. He was painted black all over and his attire consisted of dark blue briefs, an oxy-

gen hose and mask, and a pair of thermal slippers. His general appearance made such a deep impression on the guard who spotted him that the alert for a Level Five emergency—Alien Attack—had been given. Within minutes Waldo had been whisked off to the office of Armando Faust, Governor of Chryse City.

The fact that he was being treated as a lunatic, once it became clear that he was not an alien, annoyed Waldo. He was not insane, he insisted. Far from it. He was merely carrying out one of the prescribed procedures of Doctor Straker's diet plan. That plan had cost him a thousand Mars-dollars. He pulled a thin booklet from his briefs and waved it triumphantly at Faust.

Faust was rumpled, bleary-eyed and unshaven, and he was dressed in a combination of a red-and-orange-striped sleep-suit and fireboots. His videocasts contrived an impression of a massive deep-voiced man, but that was clever staging. The voice was genuine, but Faust was short and dumpy.

"Thermodynamic Dieting, by Doctor Janus Straker," he read. "You paid a thousand dollars for this? What's the deal?" He drilled twin holes through Waldo's soul with the darkest, hottest eyes Waldo had ever seen. That hadn't come across on the video broadcasts.

"It's worth every cent," said Waldo. "It's the first real breakthrough in dieting since the sugar substitutes. Guaranteed to work if properly followed."

Faust was more impressed than I would have been. Over the past ten years I've heard the story much too often. I really thought that Waldo had been cured of his dieting mania after the last fiasco—the "Bionic Diet—Just One Capsule Does It—Based On Fundamental Biological Principles." The capsule, as Waldo found out much too late, contained live tapeworm eggs. But apparently hope springs eternal, and Waldo's dream for the sylph-like figure of his youth continued.

Faust moved his black cigar from one corner of his thin mouth to the other. "Are you telling me you have to dress up in that outfit, Burmeister, and run around the outside of the Dome as part of your diet?" His voice was harsh and full of disbelief. It took a tough nut to get to be top dog in a place like Chryse City, and Faust had the reputation of being a hard man to argue with. You looked forward to an interview with him in the same way as a round of "Twenty Questions" with Torquemada or a game of "Chicken" with Attila the Hun.

"Of course. Look," said Waldo with the awful zeal of the recent convert. "The food we eat is converted to energy inside us. Either we use up that energy, in exercise or some other way, or else it goes to produce fat. So there are just three ways to lose weight. Eat less food, exercise more, or lose the energy some other way. True?"

"Sounds plausible," said Faust cautiously. He puffed on his cigar and the reeking smoke hung like a miasma in the room, defying the city ventilation system. "But what's this 'Thermodynamic Dieting' all about?"

"It maximizes the *other* ways that the body can lose energy. For instance: eat all your food *cold*. Drink lots of iced water—it takes energy to heat it inside you up to body temperature. Take cold baths—you lose heat that way. Exercise in the coldest possible place—outside the Dome. Spray yourself black, too, because that's the most efficient way of radiating heat. And wear as few clothes as possible, to maximize the heat loss from evaporation. It's all in the book."

Faust looked at the booklet. "So you've been doing all the stuff it says in here?"

Waldo looked a little guilty. "Well, nearly all. I must admit I've skimped on the ice-water enemas."

Faust, iron man that he was, shuddered. "But why, for God's sake, in the middle of the night? It's just your good luck that the guard didn't shoot first and ask questions later."

"You lose heat more rapidly if you are radiating to a colder heat-sink," said Waldo. "Not only that," he went on, delivering the final, unanswerable point. "Do you think I'd be seen running around in this outfit in broad daylight?"

Faust looked at Waldo's ballooning form, black all over and covered with goose pimples. He shook his head. "I don't know. Somebody's crazy here, and somebody

should be charged. I don't know if it should be you or the quack who wrote this book."

"Doctor Straker is a well-known and widely respected physician, and a former President of the I.M.A. Of course," Waldo added thoughtfully, "that was before his breakdown."

I think this was the point where Faust realized that further discussion would not be productive. He made up his mind.

"Burmeister, you made every official on Mars jump out of bed in the middle of the night. Including me. I could give you ten years in the superfluid plants, and everyone would applaud the decision. But I'm a kind man."

Waldo waited in horrified anticipation. Faust's favors were well-known.

"You've got a valid interplanetary passport, right? Okay. I want you to do a little job for me—and I'll pay you well for it. Not only that, I'll arrange for this whole thing tonight to be wiped off the books. There won't be one word to say that you were the cause of a General Emergency."

Waldo waited in silence. The rabbit doesn't discuss terms with the stoat.

"Maybe you know," continued Faust, "that we've been having a little problem recently with the Maintenance Services Union. Mike Maloney is set to try a new angle—a He shook his head admiringly. "There's been no real trouble yet, just a few broken heads. But it's going to get worse before we hammer out the contract, and I've tried to be ready for most things."

He removed the cigar and coughed so violently that Waldo expected to be bombarded with fragments of lung tissue.

"Last night," he went on, "one of my inside men told me that Maloney is set to try a new angle—a personal one. He's going to grab my son and put the pressure on me that way."

Waldo made suitable horrified noises.

"Oh, I don't think he'd do anything bad to him," said Faust. "He knows I'd skin him alive if he did. But he thinks it's a good way to keep me off balance. So, I've got to get Werther away from here. I decided to send him to see the family, back on Earth—he's never been there. Problem is, he's only ten and I've got to have somebody look after him on the way. I need somebody that Maloney's bunch wouldn't recognize. I'd been stuck on that—until you came along. Ten thousand dollars for Werther's safe passage to Earth, and no follow-up from tonight's little episode. Are you on?"

Waldo, despite his habit of rushing into dietary insanities, is naturally cautious. He revolved the situation in his mind and it seemed very clear. A pleasant vacation trip to Earth and a handsome fee, versus ten years in the horrors of the superfluid factories—if he lived that long. He didn't really like children, but that was a detail. He nodded.

"When do we leave?"

"Tonight. Tickets are ready at the spaceport. Every hour's delay makes it harder to get away without Maloney knowing. Go and shower, grab your stuff, and be back here in

fifteen minutes. I'll get Werther."

The child who was with Armando Faust when Waldo returned was everything that Faust himself was not. Blue-eyed, fair-haired, sweet-faced, and cherubic. Waldo hoped for the sake of family harmony that Werther resembled his mother. He was carrying a hand computer, one of the billion-byte models, and he smiled shyly at Waldo.

"This is Werther," said Faust with the fatuous expression of the proud parent. "You'll be seeing a lot of each other for the next month, so you need to get to know each other."

Waldo looked at Werther, still quietly playing his hand computer. "Pleased to meet you, my boy," he said cordially.

Werther completed his calculation and spoke for the first time. His voice was a clear, musical treble. "Estimating your height as 1.80 meters and your age as thirty-four," he said "I calculate that you are approximately forty kilos overweight. Your life expectancy should therefore be reduced by 9.2 years, the probability that you will develop circulatory problems and flat feet is increased by 38%, and you should become totally impotent at the age of forty-nine."

Waldo was struck dumb. He looked at Armando Faust and waited for a thunderbolt of stern parental discipline to descend on Werther's head. Faust merely shook his head and smiled indulgently. "It's wonderful, what he can do using that little computer. I tell you, he'll be world famous in a few more years.

"Now, Werther," he went on. "I

hope you have everything ready."

Werther smiled like an angel. "I won't go without Bismarck," he said.

Faust frowned. "Now, Werther, I told you he can't go with you. Get ready, and you and Mr. Burmeister must be off."

Werther didn't move. "I won't go without Bismarck," he repeated emphatically.

Faust looked at Waldo and shrugged hopelessly. "It's no good," he said. "You heard him. He won't go without Bismarck. You'll have to look after both of them."

Once upon a time Waldo had had a good general education. He had a sudden vision of an interplanetary flight from Mars to Earth, accompanying Werther and the mummified corpse of the Iron Chancellor. Before he could ask for details, Werther had opened the inner door of the suite and called through it. "Bismarck! Come!"

Waldo was both relieved and horrified when a large dog bounded in. It began at the front as a conventional cocker spaniel, but about the middle of the chest there was a dreadful swirl of miscegenation and the rear half, white with black spots, was a definite Dalmatian.

Bismarck, unaware of his strange appearance, wagged a long, fluffy tail cheerfully. He ran to Waldo and sniffed with interest at his trouser legs.

"He's just learning your smell," said Werther. "Once he's got it, he'll never forget it. No! Bad dog!" he added as Bismarck showed signs of labeling Waldo's trouser leg in a more personal man-

ner.

"Werther bred him himself," said Faust proudly. "He picked the genetic patterns and gave them to Mutants, Limited, and they did the mutated cross. Bismarck's bred for intelligence and tracking. Werther wants him to be a super-bloodhound."

Waldo was beginning to foresee problems. Escorting a docile ten-year-old from Chryse City to Earth was one thing. Escorting a child prodigy, clearly spoiled beyond all reason, along with his doubtfully housebroken dog, was another. The sooner it was over with, the better. Waldo hadn't eaten for many hours, and the foul tobacco-laden air was getting to him. He was suddenly very keen to get outside Faust's rooms and on the way. He stood up.

"Remember," said Faust. "Keep your eyes open for Maloney's men. You won't be really safe until you're on the ship. Don't share an airbus with anybody, and keep with a crowd of people whenever you can. You'll get your fee when I hear that you've reached Earth."

He said his fond farewell to Werther. Waldo and Bismarck each received a casual nod, and they walked along the corridor that would take them to the elevator.

It arrived empty. They entered, and Waldo spoke the level they wanted. As he did so, Bismarck growled. The elevator, confused by the twin inputs, did not move. Bismarck growled again and Waldo looked at him in annoyance.

"Can't you keep him quiet, Werther?" he started to say when he noticed the white vapor emerging

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**We make
a little
go a long
way.
Give.**

**Red Cross
is counting
on you.**



from the low ventilator grille. It dawned on him that Mike Maloney, head of the Maintenance Services Union, was responsible among other things for the Chryse City elevator system. But by then it was too late.

* * *

In some places Waldo's account of subsequent events fails to match other versions. He says his captors held him for three days without food, and undeniably he missed several meals. But I believe that was mainly his own fault—you can judge for yourself.

He was knocked out by the narcogas for a couple of hours, at most. He awoke in a locked room, somewhere in Chryse City. It would be inappropriate to say that it was an unfamiliar room, since thanks to the unit construction methods used, every room looks the same as any other. However, he had no idea just where he was.

The room contained only a bed, chair, table, and the usual sanitary facilities. There were two doors, both locked. Waldo rattled them a bit, more or less hopelessly, and was startled when he heard Werther's impatient voice behind one of them.

"Burmeister, you're awake at last," it said. "Now we can all get out of here."

"How did you know it was me in here?" said Waldo in surprise, stooping to set his ear to the door.

"Bismarck can smell you through the door. Look, this shouldn't be too hard. There are lay out diagrams of the city in every table drawer. You know, standard re-

quirement for blow-out precautions. Get yours out and I'll tell you what we do."

"But it's no use—we don't know where we are," said Waldo.

"True. But I've got my computer here with me. It's like the Traveling Salesman problem, remember? I've got the program—"

Waldo straightened and turned quickly as the other door of his room was thrown open. Two men in the anonymous gray uniform of Maintenance Services stood there.

"Thought so," said the taller of the two. "We'll have to separate them. I didn't expect there'd be anybody else picked up with young Faust."

"We'd better be careful," replied his companion. "Maloney'll skin us both if Faust Junior gets hurt. He's the trump bargaining card."

"He is, but that doesn't apply to Fatso here," the tall man replied. He glared at Waldo. "We'd better get him to a different room, where they can't talk to each other. Come on, you, quietly if you want to stay comfortable." He lifted the electric prod he was carrying and pointed outside.

Waldo turned quickly back to the locked door. "Don't panic, now, Werther," he said in rapid, high-pitched tones. "I'll think of something. I'll get us out of here, just you relax. Oof!" he concluded, as the electric prod was applied briefly but effectively to the seat of his trousers. "All right, I'm going. You didn't need to do that, you barbarian."

Waldo was shepherded out and locked in another room, out of earshot of Werther.

"Behave well," said his captors, "and maybe we'll bring you something to eat later in the day. If you're noisy, you'd better be ready to live off your fat."

They didn't know it, but they had made a big mistake. Few things in life can rouse Waldo to heights of physical bravery and action, but threat of starvation is one of them. As he has occasionally remarked to me when in a philosophical mood—usually after a vast dinner, where he has demolished enough for three people—"hunger sharpens the brain."

The furnishings of the new room were identical with the old one. Waldo remembered Werther's remark and went to the table drawer. A book of schematics there showed the main Chryse City life-support systems in all their monstrous complexity. Air, water, sanitation, and power were all drawn out in complete detail, showing the linkage of every apartment to the main lines and the feeder systems.

Waldo reviewed the options—very limited ones. Power and water were delivered through narrow conduits. The air-handling system, behind the wall ventilator, had a fifty-centimeter duct. To get through that, Waldo would need to be extruded, like toothpaste from a tube. That left the sewage system as the only alternative. It had a one-meter duct to begin with, but it merged to a bigger line underneath the apartments, and then varied in size again as it approached the central disposal system.

Waldo, thanks to an unfortunate episode earlier in his career, was no stranger to sewage. Grimly he took

the layout diagram and tried to plot the ways through the maze of pipes.

There were two problems. Since he didn't know where he was, any starting point for his analysis seemed equally valid; and since Maloney's men might be anywhere, it wouldn't do to simply escape—he would have to surface in a safe place, preferably very close to Faust's private suite.

He had to make some pretty wild guesses about where he was and where he would like to go. Then he settled down with notebook and pencil to a long session of route planning. There was inevitably a lot of trial and error involved. After five hours of grinding detail, drawing in paths and noting routes in terms of turns and numbers of ducts, and finally making a detailed list in his notebook of all the necessary information, Waldo had done all that he could. He made the final notation and put the book in his pocket.

A square meal, brought by his captors at that moment, might have changed everything. But they seemed to have forgotten him and he resolved to move ahead with his plans.

The toilet assembly lifted out, after a mighty struggle, and revealed a dark, deep drop to the duct below. Waldo carefully lowered the flashlight, provided in the table drawer for possible power failures, to the bottom of the hole. From the length of bed-sheet strip he had used, he estimated that it would be a drop of a meter or less if he lowered himself at arm's length. He began to insert himself into the hole, but it was a much tighter fit

than it looked—Docotr Straker's Thermodynamic Diet had done less for Waldo than he had hoped. He stood up, removed his jacket and squeezed himself again into the hole. After hanging for a second, he dropped to the duct, retaining his balance with difficulty, then carefully retrieved the flashlight.

The procedure from that point on was simple but tedious: follow the route listings and path designators that he had copied into the notebook, using the flashlight for illumination; get to the central sewer conduit and exit from there, using the main maintenance catwalks and entrances; locate the nearest video-phone, call Armando Faust, person-to-person, and tell him that Werther had been kidnapped; give as much information as possible on the place where he was being held prisoner; and then meet Faust and assist in the search for Werther.

There was one slight problem. The information on the routes was all recorded in the notebook; the notebook was in Waldo's jacket pocket; and Waldo's jacket was still in the room, lying where Waldo had placed it after deciding that the sewer entrance would be a tight fit. Apart from that, everything was fine.

Oh, yes, one other thing. The recent work of Maintenance Services had been well below par. The flashlight, when Waldo switched it on, gave forth the feeblest glimmer of exhausted batteries, like the mating of tired glow-worms.

Waldo stood in the slippery, sloping duct and looked at the lighted hole into the room above him. It was not more than a meter above his outstretched hands, and that

should have been no problem at all under two-fifths Earth gravity. Unfortunately, the space was cramped, the footing treacherous, and Waldo had never been much of a one for leaping. After a few desperate and unsuccessful attempts, he felt that the lighted opening above him was as remote and inaccessible as Alpha Centauri.

Since he could not go back, he had to press on, trusting to luck and memory alone to guide him successfully through the labyrinthine ways of the Chryse City sewage system. He set off bravely through the darkness, making his choice of turns and branches on a completely random basis. In terms of probability of success, he was like a solitary chimp deposited at a typewriter and told to write the works of Shakespeare.

The dying flashlight was useless. After a few minutes Waldo threw it into the darkness and sent a stream of oaths after it. He ploughed on. Sometimes he would be in a tall, wide pipe that felt completely dry under foot. Sometimes he would be banging his head on the low ceiling of the duct and splashing ankle-deep in what he hoped was water. Where a choice existed, he tried to head 'downhill,' hoping to reach one of the central cloacas—all of them had maintenance lighting and access to the outside corridors.

Waldo struggled gamely on, through verdurous glooms and winding mossy ways. As he said, the alternative to struggling on was not good; it was hardly a situation where one could choose to lie down and rest. One fact became increasingly clear: sewers, at least modern

sewers, are not cold. The stereotype of a chill, clammy atmosphere doesn't apply when people have ample energy for heating. Waldo says that the Chryse City sewers are rather like the medium setting of a sauna. After three or four hours of rambling he was on his last legs and felt as limp as a beached jellyfish.

I know Waldo very well. We've been friends and partners since law school. So I believe him when he says that he had begun to despair of ever reaching any exit. He kept thinking of the limerick about the young man named Clyde who fell down a sewer and died. And when, at last, he came to an intersection and saw a faint light, far off to his left, he could hardly believe it. He staggered toward it, along a narrowing duct. He went down on hands and knees, then at full stretch, and moved forward.

Waldo had reached one of the central settling-pond areas, into which many ducts deliver their contents. Unfortunately, he had found one that in its final stages was less than half a meter in diameter. He crawled on, finding the fit tighter and tighter, and finally, about three meters from the end, he stuck. No amount of pushing and straining would move him forward another millimeter. Nor, as he soon discovered, would it move him a millimeter backward.

He was stuck. He lay there, feeling that safety and comfort were just a few meters away.

He was wrong, as it happens. The duct emerged almost ten meters above the surface of the settling-pond, and directly below the point of emergence was a sharp metal fil-

ter. If Waldo had been able to get to the end of the duct and drop from it, he would have been cut to ribbons. His problem was just a bit worse than he realized.

As far as I can tell, Waldo was actually stuck in that pipe for at most eight hours. I don't argue with him when he says that subjectively it seemed five or six days. After the first couple of hours, he became aware of a new factor. Something was pushing him firmly, and steadily, from behind; delicately, all over his nether regions.

After a few puzzled minutes it dawned on him that he was experiencing the much-vaunted computerized sewer-maintenance system. When a blockage occurs in the Chryse City sewers, two things happen. The air pressure is steadily increased, in an attempt to blow the obstruction free, and after a threshold value is reached, the presence of the blockage is reported on the central services' control panel. To the control computer, Waldo was just another piece of waste material, an aggregate of garbage blocking a vital feed line. The pressure rose steadily.

It continued to rise. Waldo, in the heat, sweated profusely.

After long hours, the critical point was reached where tangential forces exceeded static friction. Waldo, like a well-greased bullet, was propelled suddenly along the duct with increasing speed and then fired out into space, over the settling-pond. He hung poised for a moment in mid-air, well clear of the metal filter, then dropped from the zenith like a falling star.

He struck the settling-pond sur-

face flat. The resulting tsunami was enough to inundate the two service men arriving at that moment to investigate the blockage.

They dredged him out. The three of them staggered back to the access corridor. No one spoke, although there was a good deal of swearing, coughing, spluttering, and spitting. Just when Waldo was wondering how he could get loose of his companions and find a video-phone to call Faust, they came to a door off the main corridor and one of the maintenance men threw it open.

"The boy was right," he said through the open door. "That's what the blockage was. Here he is, and you're welcome to him."

They pushed Waldo through the door and departed for the showers. Sitting at a long table inside the room were Faust and Werther, with Bismarck lolling at their feet. Faust and Waldo looked at each other in disbelief. Finally, Bismarck stood up, walked over to Waldo and sniffed at him inquiringly. He recoiled slightly, then began to wag his tail, tentatively. He looked like an art critic, discerning the faint outline of an Old Master's work beneath the more recent daubing of a lesser painter.

"It is," said Faust. "It really is Burmeister. You were right, Werther. No," he added hastily as Waldo began to approach the table. "You sit down over there, by the door. I know you don't like the cigar smoke."

Waldo collapsed into a chair. He had so many questions he didn't know where to start. How had Werther got free? Why were the

Maintenance Services people acting friendly to Faust when they were locked in contract combat? How long was it since he had been captured? He needed explanations, but most of all he needed rest.

Werther's childish treble intruded on his thoughts. "You should have left the escape to me," he said reprovingly. "You are not intellectually equipped for such activity. Also, you had no computer with you."

"Computer? What's a computer got to do with it?" asked Waldo feebly. That crack about his intellectual capacity, like the earlier one about impotence, rankled.

"Everything. Without a means of systematic calculation, the chance of finding your way through the City utilities' system is almost zero. Even Bismarck and I had to make use of additional factors to arrive home at our suites. Do you realize that the 18,000 nodes of the utility system imply more than 10^{66} possible path choices on a trial-and-error basis?"

Waldo didn't know. Furthermore, he didn't care. He closed his eyes wearily. He hadn't gone through days of anguish, escaping through the sewer system, to be lectured by an undergraduate runt. Then a thought struck him and he opened his eyes again.

"You mean you were in the sewers too? I never saw you."

"Of course we weren't. What a revolting idea! We went through the air-handling system. I used the general schematic to set up the route choice as a non-linear programming problem."

Waldo closed his eyes again. This promised to be even worse.

"I set as the objective function the path length to the central air tunnel," went on Werther, "where all the ducts merge. Then I minimized that, using a semi-heuristic algorithm that I developed last year for the Traveling Salesman problem. It was far from trivial. My hand computer took almost three hours to compute an optimal strategy. When I had it, I removed the air grille and Bismarck and I set off."

Faust was shaking his head in admiration. "Can you beat that, Burmeister," he said. "Figuring out the best path on his computer, out of ten-to-the-umpty choices. That isn't the best part, either. Go on, Werther, tell him the rest."

Werther regarded his father sternly. "I would appreciate it, Father, if you would refrain from interrupting me," he said.

Faust looked abashed. Waldo couldn't understand how this man, who ate tough guys for breakfast, could be so subservient to a ten-year-old. It increased Waldo's own distrust for small children—especially smart-ass ones.

"At the point where all the ducts merged," continued Werther, "I had to resort to a different strategy. When a problem is difficult, it is necessary to deploy all available resources. I led Bismarck to each of the main air branches feeding into the central tunnel, saying 'Home' to him at each one. At the fourteenth branch he began to wag his tail. As I had surmised, the characteristic aroma of Father's cigars was strong enough to carry through to the central tunnel."

"Specially made for me in

Pittsburgh, Pennsylvania," said Faust. He held up his lighted cigar. "Each one wrapped from a single leaf of high-quality Scranton tobacco."

Yes, thought Waldo, and hand-rolled against a steelworker's thigh, from the smell of them. Fortunately, he was too tired to speak. He was developing a grudging respect for Werther. The lad had a great future ahead of him, unless some public benefactor exterminated him along the way.

"Father, I told you once," said Werther in admonishing tones. "Please do not interrupt again. As I was saying, we took the main branch that Bismarck selected and followed the same procedure at each succeeding fork. Bismarck led us infallibly to the apartment, where I attracted Father's attention and we were able to enter through the air grille."

Something still didn't make sense to Waldo. "But how were you able to obtain assistance from the maintenance people to get me out?" he said. "I thought they were your enemies."

"Werther took care of that, too," said Faust. "You see, on the way back here . . ."

He subsided under a stern look from Werther.

"To answer your question," said the latter. "On the way to the central air tunnel we passed a number of other apartments and could both see and hear through their air grilles. In one of them we chanced to observe Mr. Maloney. He was with a lady, and they were engaging in certain activities that apparently appeal to adults. Since my computer

also has a recording mode, it occurred to me after a few minutes to make a video and sound recording through the mesh of the grille. It is not of any great quality, but quite adequate.

"Now, you may explain the rest, Father," he said graciously to Faust.

"Well, the lady with Mike Maloney—and I don't know why I use the word lady, considering some of the things she was doing—happens to be a special close friend of Jake Gregg, head of the Transport Union. Jake happens to be a pretty headstrong guy. So I called Mike, he came over here, and we played the tape. Then we had a really nice, friendly chat, and he signed the new contract we wanted, on the spot. Mike assured me that he is really a good friend of mine, and he apologized for what his men had done, kidnapping you and Werther. Strictly against his orders, he said. He called over there to have you released, and they told him you'd escaped into the sewer system. They were reporting a pressure rise there, too. Werther figured out what was happening in two seconds, and we came over here to pick you up."

"Don't forget to tell him about the fee, Father," said Werther.

"Oh, yes. I said you had to get Werther to Earth to get your fee. That's about one hundred million kilometers, so you only made it a billionth of the way. But Werther points out that the kidnapping settled the crisis, and he didn't want to go to Earth anyway. So he told me to—I mean, I'm going to pay you half the fee, for your efforts. What do you think of that, Burmeister?"

Burmeister? Damn it, Werther, I believe he's fallen asleep."

Indeed he had. While Faust had been speaking, Waldo had at last managed to remove several bits of twisted metal, broken ceramics and unrecognizable glop from inside his shirt and trousers. He had collected them during his visit to the settling-pond, and the discomfort they caused had been the only thing keeping him awake. He was aware of certain mammoth stirrings and churmings deep inside him as his stomach fought a great battle with his ingestions from the settling-pond, but even that couldn't stop his eyes closing. Something attempted, something done, has earned the night's repose, he thought. He slept.

* * *

It took Waldo a while to recover from his ordeal, including the case of dysentery he picked up somehow on his trip through the sewers. While he was recuperating, he had a constant stream of visitors. The whole episode, involving boy, dog, and man in their complex trips through the utility system of Chryse City, caught the public fancy. In particular, Waldo's spectacular exit from the last duct attracted all the headlines. "Human cork survives tunnel ordeal," said one; "Human cannonball makes 'soft landing' after death-defying flight," proclaimed another. Waldo was famous.

It didn't take the newsmen long to decide they would rather deal with Waldo than Werther, who treated them all like idiots and was enraged by any reporting errors.

Waldo lay there at his ease while his bank balance, already fat from Faust's fee, swelled hourly as he conducted paid interviews with all forms of the media. He sold the book rights for a princely sum, and now there is talk of making a holo-movie based on the episode.

Do you see what I mean about evolution? Waldo exhibited none of the usual survival traits. Oh, well, perhaps a certain blind persistence. But as usual, he landed on his feet. He always does. It convinces me that the main genetic selection criterion these days is not skill, intelligence, or any of the usual virtues. It's entertainment value. Have that, and everything else will come to you.

Waldo has so much money now, he's hesitating to go ahead with the deal I set up for him. By the time

he recovered from his experience, the lack of food after he was kidnapped, his strenuous exercises in the Turkish-bath atmosphere of the sewer, plus the dysentery he developed there, had all produced a big effect. I contacted Doctor Straker and made a suggestion. He was most enthusiastic.

The paper I have here says, "In the ten-day period after I began Doctor Straker's Thermodynamic Diet plan, I testify that I lost a total of eleven kilos in body mass. Signed, Waldo Burmeister."

It's a perfectly true statement. All he has to do is sign it and we'll both be considerably richer. He seems strangely reluctant. He hasn't said so, but I suspect that he doesn't want to have anything more to do with Thermodynamic Dieting. ★



GALAXY

BOOKSHELF

Paul Walker

Adventure, Mystery and Romance,
John G. Cawelti, University of
Chicago Press, 1976, 335pp.,
\$5.95.

Vazkor, Son of Vazkor, Tanith Lee,
Daw, 1978, 220pp., \$1.95.
Quest For the White Witch,
Tanith Lee, Daw, 1978, 317pp.,
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Edd Cartier: The Known and the Unknown, ed. by Dean Cartier,
pub. by Gerry de la Ree, 1977,
128pp., \$15.00.

*Dark Sins, Dark Dreams: Crime in
Science Fiction*, Barry N.
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Doubleday, 1978, 224pp.,
\$7.95.

Demons Within, and Other Disturbing Tales, Helen Hoke, Tap-
linger, 1977, 189pp., \$8.95.

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214pp., \$1.95.

Art for Archie's Sake

Is science fiction serious literature? Why do writers like Barry N. Malzberg and Norman Spinrad provoke such hostility from some readers? Why do some sf fans despise fantasy? What is the affinity between sf and mystery fiction? What is the secret of the continuing popularity of such writers as Robert E. Howard and Edgar Rice Burroughs? What is the real appeal of films like *Star Wars* and *Close Encounters*?

John G. Cawelti's *Adventure, Mystery and Romance: Formula Stories as Art and Popular Culture* does not provide the answers to these questions, but I believe it does provide the best method for finding the answers—by providing the best method for studying sf, and other genre fiction, that I have ever read.

Cawelti mentions sf only in pass-

ing. His principal interests are the mystery as exemplified by Chandler, Hammett, Christie, Sayers, and Spillane; the western of Owen Wister, Zane Grey, and John Ford; and the social melodrama from Dickens to Harold Robbins. The questions: What constitutes a formula? How does a formula evolve? What are its artistic potentialities and limitations? And what does it reflect of the culture that produced it?

Of the latter he says, "Patterns of convention...are usually quite specific to a particular culture and period and do not mean the same outside this specific context." So the "Virtue Rewarded" plot, like most of genre literature, is lost to us as time changes. The swooning damsel-in-distress becomes the lusty heroine becomes the feminist hero. The socially responsible knight-in-shining-armor becomes equally responsible cowboy becomes the mysterious stranger becomes the outlaw defending the innocent settlers from the ruthless cattle barons. What have we lost in these transitions, and what have we gained? And what do they tell us of the periods that made them best-sellers? And what can we learn of our own culture from our genre fiction?

A formula is a pattern of conventional elements to be found in the majority of works of a particular kind. Usually the people who invent them, such as Poe or Doyle or Owen Wister or Dickens, do not realize they are inventing a whole new literature. As Cawelti points out, although Poe invented the detective story in the 1840's, it was not until the '90's, with Conan

Doyle, that the form became popular.

In science fiction it has taken decades for the formulas exemplified in *Star Wars* and *Close Encounters* to enter the popular consciousness so as to become acceptable to a wide audience. Why? Because a formula is grounded in the mysterious human psychology of patterns. Those who appreciate formula literature are those who have absorbed the elements of the patterns, and they come to each new work with specific expectations of how it will all come out; and as Robert Warshow says, "Originality is to be welcomed only in the degree that it intensifies the expected experience without fundamentally altering it."

I believe that statement answers virtually all of my initial questions. At least in part.

But I can hear you shuddering out there. Sf? *Formula literature?* "Walker, you—*mundane!*"

Academic criticism of sf usually bothers me in one of two ways: either the critic is so intent on proving the literary respectability of the genre that he will make exorbitant claims for its literary merits; or he is apologetic, if not contemptuous, of it. Cawelti avoids these postures by being both affectionate and objective, and not by oversimplifying the differences between genre and mainstream fiction.

Nor is his definition, and treatment, of the formula mechanistic. Usually we think of formulas as rigid plot structures, and the people who write by them as hacks, cranking out the same book every time; but as Cawelti brilliantly demon-

strates, neither assumption is true. A formula is composed of elements of plot (hero, heroine, villain, obstacles, backgrounds, processes of solution, and solutions themselves) that may be combined in an infinite variety of ways and serve as vehicles for the most enlightened social thought as well as for the author's private vision.

We all know that the sf books we like have plots, and that plots have structures designed to achieve a certain effect: an effect we have experienced before and found pleasurable, and so we return to experience it again and again. But while the effect may be the same, and the plot structures similar, we demand a new inventiveness each time from the writer. Always, no matter how many books he has written, we demand of his latest that same freshness, excitement and originality we experienced from his first. And this is as true of a Poul Anderson as it is of a Harlan Ellison.

Defined in the strictest sense, formula analysis may account for why series books have been so popular, and why particular writers of no outstanding merit, such as Andre Norton, have been such favorites. On the other hand, defined more loosely, it helps to explain why less conventional stories and novels such as "Riders of the Purple Wage" or *Stand on Zanzibar* created so much excitement by combining new styles and ideas with conventional sf treatments. Where such a new combination is made so that it intensifies the sf experience, it is greeted with applause; where it de-intensifies the experience, usually by subordinating it to characterization

or thematic development, it is roundly booed.

The principal problem in evaluating sf has always been the matter of comparison between it and mainstream fiction. Is a formula fiction the equal of the non-formulaic?

I would say no. Some would say yes. And we would go on arguing forever. But what Cawelti says is that the comparison is irrelevant. People read sf, as other genre fiction, for different reasons than they read "serious" literature. And it is in their differences, in their own uniqueness, that sf, and other genre fiction, are best appreciated.

Genre fiction is usually denigrated for its limitations, and certainly it has them; but the limitations of sf are rather like those imposed on the robot story by the laws of robotics or on interstellar flight by the law of relativity. Once accepted, they become an incentive to creativity as writers deal with their implications or try to find ways around them.

Years ago Damon Knight told me that what he wanted his *Orbit* anthologies to do was to expand the boundaries of sf, to create "a renaissance in sf that would return it to its literary origins in Wells." Others claimed the only way to do this was to destroy every vestige of pulp tradition. But did they?

If one made the mistake, as I did, of taking the New Wavers too literally, one was bound to believe that the whole movement meant disaster for the genre. And one was equally bound to breath a sigh of relief when the whole thing seemed to blow over in a few years. But what

really happened? Did the New Wave fail?

By the mid-1970's, I realized sf had changed for the better; but how much of that change could be attributed to the New Wave I could not be sure. Now, thanks to Cawelti and his analysis of the evolution of other genres, I have a better idea.

Revolution within a genre is a matter of new combinations of conventional elements, new styles, new languages, new ideas, and elements themselves. As crude as were the early experimental stylists, the New Wavers did open up sf to new stylistic approaches. They did help to improve the quality of sf prose and characterization. And most importantly, they opened the floodgates of the 1960's and let all the social turmoil of the age pour into the genre.

Until then sf was dominated by the pro-technologists, the futurist optimists who saw utopia in a nuclear reactor. They still do. But no longer does their viewpoint define the genre. The spectrum of opinion in sf reflects the culture around it more accurately today than it ever did before.

But all of these things were done on the basis of what had been done before them by writers who were never New Wave, such as Clarke, with his quasi-religious alien encounters; Heinlein, with his seemingly infinite inventiveness; and Philip K. Dick, among others. The New Wavers accelerated these changes, but did not invent them. What they did was to create a conflict in sf that served to revitalize the field by getting everyone excited about it.

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My principal complaint against the New Wavers all along was that they were doing nothing more than imitating the mainstream, and the old mainstream at that—Joyce and Kafka. I did not appreciate how useful these techniques could be in revitalizing conventional themes and stories. In fact, they did not realize it either, for the prime beneficiaries of their innovations have been the more conventional writers such as Niven, Pohl, Zelazny, Le Guin, and Silverberg.

Formulaic analysis, as presented by John G. Cawelti in his *Adventure, Mystery and Romance*, does, as I have said, provide the best method I have yet read for evaluating the achievements of sf. But there is so much more to it. Cawelti is wonderful on Hammett and Chandler and Christie and even Irving Wallace. His chapters on the crime story and the evolution of the social melodrama; his analysis of the *Virginian*—all marvelous. His language is clear of jargon, always lucid, always pleasant to read. I do not agree with all his speculations on how this or that genre reflects a particular period, but he is never dull.

I put down the book each night slightly out of breath, my head swarming with ideas. I have yet to sort them out, but this much I can tell you: I have been reading genre fiction all my reading life and never felt I was wasting my time. But I have never been sure until reading this book what I was really getting out of it. Now I have a much better idea, and I feel more at peace with my enthusiasm than I ever did before.

An Edifice for Oedipus

The first thing you will notice about the last two volumes of Tanith Lee's *Birthgrave* trilogy is that the covers are ugly. One is somewhat better than the other, but only somewhat. Fanzine art. The second thing you will notice is that the title of the second volume, *Vazkor, Son of Vazkor*, is the silliest you have seen in years. (And *Quest for the White Witch* is not much better.) The third thing you will notice, if you read both books carefully, is that you are going blind from the stingy fine print that is as uncomfortable to look at as to read.

So far, so bad.

The story is conventional sword and sorcery. *The Birthgrave* was the story of the White Witch. *Vazkor, Son of Vazkor* is the story of her son by the black magician (what's his name?). She has left him with a barbarian tribe where he grows up thinking his mother to be the wife of the chief. He finds he has extraordinary powers, and these alienate him from the tribe and from himself. He also finds that the woman he thought to be his mother is not. He finds out his true identity, but few of the details. He comes to hate his mother, and by the end of the first book, swears an oath to his father's memory to find her and kill her.

In *Quest of the White Witch*, he journeys south to the city of Bar-Ibitthni where he establishes a reputation as a mighty sorcerer, which he is. He becomes involved in local politics; is beatified as a god by the lunatic fringe; and ends by leading a revolt against the throne in favor of

the outcast heir. The battle is concluded by a massacre of Vazkor's worshipers by Vazkor himself, which will give you an idea of the sort of fellow he is. Also typical of him is that he falls in love with the new king's mother. This leads to a charge of treason. But before he can be bodily thrown out of the city, the witch of the lunatics that Vazkor has betrayed sends a plague of flies to disrupt the king's coronation that turns into a real plague that kills everyone, including Vazkor.

Of course he rises from the dead. He goes farther south, having lost all interest in his quest for his mother. But events put him back on the track, and at last he finds her.

For the most part, the story is good kinky fun, especially the ending which suggests that Oedipus didn't know when he had it good. There are some wonderful sequences, such as the plague of flies or the meeting with the White Witch, and some fine writing; but overall the book is turgid and uneven. Although the story is supposed to be set on another planet, you find references to Greek myths; or a barbarian saying to his lady, "Has my dulcet wife been scourging you as she begged to do?"; or purple passages such as: "The gate between her thighs was golden as her hair, and the road beyond the gate was made for kings."

An even worse fault is her use of the first-person narrator. Despite the constant "I," it is never clear who is thinking what. The story is of Vazkor's maturation from a ruthless barbarian with godlike powers to a sense of himself as a whole man. Ostensibly the story is being

told by Vazkor after the fact. But this is rarely clear. The ruthless barbarian seems as sensitive and introspective as the sage, and his acts of brutishness contradictory to his character. Always the tone of his thinking and feeling is that of a well-educated contemporary man.

Like Chelsea Quinn Yarbro in *Hotel Transylvania*, Lee uses psychology to revitalize the traditional sword-and-sorcery formula. Vazkor is a complex character whose confrontation with his magical powers is depicted as a problem of growing up. He loves his mother and kills his father at the beginning; then he finds his real mother had abandoned him, so he switches allegiance to his father, Vazkor, and sets out to kill his mother, who, of course, is not the villainess she seems. In the end he switches allegiance again: his father the villain, his mother the lover.

The male-female situation in both books is as sexist as one expects to find in sword and sorcery: the women are, with few exceptions, either passive cattle or lusty and treacherous; the men are muscular and aggressive, or homosexual and decadent. (The racist elements are delicately avoided by a careful distribution of skin colors.) But Lee's real theme seems to me to be feminist, for the essence of Vazkor's search seems to be to reconcile the male and female principles within himself.

Not long ago I wrote a glowing review of two short novels by Tanith Lee called *Companions on the Road*, in which I said I planned to read more of her and I suspected when I got done, I would like one

book just as much as all the rest. Obviously I was wrong. But it was not my jumping to conclusions that did me in. Lee seems to have fallen victim to that itch from which so many young writers suffer—she wanted to be a writer. And if that meant selling out her talent, she appears to have been prepared to make the sacrifice. While the two novels in *Companions on the Road* showed care and sensitivity in their making, *Vazkor, Son of Vazkor* and *Quest for the White Witch* are hackwork. All the intelligence and ability that went into the former are present in the latter two, but laid on with a shovel.

If Lee is anything like the writers I know, she is liable to say something like, "Art, hell. I write to eat." If there is any truth in the saying we are what we eat, she is in big trouble.

Ghouls and Dalis

When I was nine, a friend of mine, who was a year older, took me to see my first horror movie—*The Mummy's Ghost*. It was Hallowe'en, and it was cold, and it was raining. There was a line of kids halfway round the block, and we had to wait an hour in the cold and the rain to get in. By then the picture had started. We sat in the balcony, in the middle of a row packed with screaming kids, hardly able to move. Nevertheless, at the first appearance of the monster, I managed to eject myself from the entire row and achieve the safety of the street in, oh, say ten seconds.

A few years later it was I who was escorting my younger friends to

their first horror movies and howling as much at their cries of fright as at the antics on the screen.

Critic Elder Olsen has theorized that the essence of comedy is when a thing thought to be dangerous, or disturbing, is proved to be neither. Thus, the terrors of one generation become the toys of another.

An object of terror is an object of fascination; and although we may lose our terror of it, we never forget it; and consequently, we never completely lose our fascination with it. But having lost our terror by overcoming it, we end with a sense of affection for the thing. What was once an object of dread becomes an object of delight, and even admiration. In the early Godzilla films, for instance, the monster was the enemy of humanity. But by the end of the series, he, and the other creatures, had become heroes, defending humanity against extraterrestrial monsters.

In one of the films a small Japanese boy learns courage and self-reliance by vicariously sharing a similar growing-up experience with Godzilla's infant son. The Japanese boy was years younger than when I saw my first monster film, but already he, and his generation, had formed attitudes toward them that my generation did not acquire until their teens.

Satire and self-parody are two of the last stages of the decadence of a form. It means that people are no longer able to accept the form as anything but comedy. The sentimentalization of a form is a kind of parody. The effect aimed for is not our original horror, but nostalgic delight.

It was this delight that was the principal ingredient of Campbell's *Unknown*, and it is clearly evident in the work of Edd Cartier.

Along with Bok and Finlay, Cartier is regarded as one of the best artists of the pulp era. He was born Edward Daniel Cartier in North Bergen, New Jersey, on August 1, 1914. An interest in flying led to an interest in pulp fiction and that led to a desire to become a commercial artist which led to being hired by Street and Smith during the 30's primarily as an illustrator for *The Shadow*, for which he did 800 drawings between 1936 and 1949.

From the late 30's he worked for John Campbell on *Unknown* and *Astounding*, a relationship that lasted until he quit the field in 1953 for better-paying jobs.

Cartier's work was largely before my time, and it was not until I read his son, Dean Cartier's book, *Edd Cartier: The Known and the Unknown*, that I became familiar with it. It is the first major collection of his work from *Unknown* and *Astounding* in the late 30's to his retirement, and it includes his drawings for the Gnome Press fantasy calendar, which are among his best.

My first impression on paging through the book was that I was looking at the work of a student of Kelly Freas. The resemblance is remarkable. Freas is the better artist, but then, Cartier came a decade before his first appearance.

Cartier's work is a delight, but rather too light to be gulped down in one sitting. His monsters and grotesques are invariably ingenious and striking. His expressions and preternatural anatomy are brilliant.

Much more so than those of his normal people, who are very bland except when they are grotesque.

In fact, he never seems to have learned how to draw any normal-looking people convincingly, as if they did not interest him. His illustrations for de Camp's *The Hand of Zei* are pure comic book. Nor was he successful with serious themes, such as he did for Eric Frank Russell's "With a Blunt Instrument," showing a great bone lying on a life-insurance policy with a pile of skulls in the background; or for Del Rey's "The Years Draw Nigh," which depicts an over-the-hill spaceman. Both are lifeless.

He was best with whimsical creatures, animal and human. There is a childlike good-heartedness about them all; a mischievous twinkle in every eye. And his use of light and shade is impressive. In one case, for A.M. Phillips' "The Mislaid Charm," it is brilliant. An elf is stamping in rage. The figure seems to leap off the page. It was one of the few times that Cartier achieved any real suggestion of mobility in his work.

As many times as I have paged through the book now, I am still amused by it. I think fantasy fans will find it a treasure, worth the fifteen bucks. If you want a copy, send \$15.00 (no shipping and handling charge) to: Gerry de la Ree, 7 Cedarwood Lane, Saddle River, New Jersey 07458.

Things That Go "You" in The Night

Because science fiction is regarded as being as optimistic about

the future as mystery fiction is about the ultimate triumph of law and order, the paranoid science fiction story seems an anomaly in the genre. It assumes that the best man (or woman) will not win in the end; that the future may well belong to the strong and the ruthless, who will herd the meek like cattle. It presents a dark vision of the future which should be depressing, and unpopular, but in fact some of the best science fiction, such as *1984* or *Brave New World*, is paranoid and popular all the same.

There are numerous fine and entertaining examples of it in *Dark Sins, Dark Dreams* edited by Barry N. Malzberg and Bill Pronzini. The subtitle is "Crime in Science Fiction," but with a few exceptions, the stories concern the individual's plight in a totalitarian tomorrow.

While on the surface it might seem that the paranoid story contradicts sf's traditional optimistic view of the future and reaffirmation of positive, or enlightened, values, this is not what happens. One of the essential differences between genre and mainstream literature is that the latter attempts to demonstrate the ambiguous nature of life, the "grays" of existence; while the former attempts to resolve them; to reduce existence to a matter of black and white.

Sf writers do this not because they are ignorant of life's ambiguities, but because the traditional plot demands resolution. Someone must win, someone lose. The hero (or heroine) may win physically, utterly vanquishing the villain; or he (or she) may lose physically, and still win a moral victory (i.e., the

hero dies, or is destroyed, tragically for a principle.). But whichever resolution the writer chooses, it must be a decisive one. And even if it is pessimistic, it must affirm positive values.

Among the positive values it affirms are that there is a distinct difference between right and wrong or good and evil; the individual is sacred and invincible; power corrupts, and absolute power corrupts absolutely; technology is power, and therefore a demonic force for corruption; freedom is available only to those special people with the intellect, imagination, and heroic courage to seek it in the wilderness.

An example of these values can be found in one of the three original stories in this book, Chelsea Quinn Yarbro's "The Generalissimo's Butterfly." It is an excellent story. The heroine is an intellectual who has supported a Latin American revolution only to find its leader has betrayed its ideals and imposed an even more oppressive regime on the people. She is reputed to have developed a spying device in the form of a butterfly, from which no one will be safe. The device was unsuccessful, but the people believe in it and fear it. She is conspiring against the Generalissimo, and he intends to send her into exile. She goes, seemingly without hope, but undefeated. Her invincible individual will remains intact; and her values, by contrast to those exemplified by the Generalissimo, are affirmed.

The image of the butterfly in the story could remind one of the flies in Sartre's play about Electra. Images of menace. Nature and

technology illegitimately joined by the mind of man; a demonic hybrid, a symbol of sin and corruption. But a world not without hope.

There may be no god in the paranoid universe, but there are innumerable Christs. The heroine of the "The Generalissimo's Butterfly," and most of the heroes and heroines in most all of these stories, are as dogmatic as the villains they oppose, and always intent on laying down their lives to redeem mankind.

Donald Westlake's "The Winner" has such a hero. Again technology is the instrument of power. The hero is a prisoner in a prison without walls. He has a device in his head which will inflict terrible pain if he wanders outside. Yet wander he does. Again and again, always getting a little closer to freedom. The villains watch him with amusement and then with fear. In the end there seems no possibility he will ever escape, but he will go on trying.

In Robert Silverberg's "To See The Invisible Man," a man convicted of antisocial behavior is sentenced to "invisibility" for a year. No one will "see" him on penalty of suffering the same fate. It is an agonizing punishment for him, brilliantly depicted. In the end he is freed. The cops buy him a beer and let him go. He walks down the street and meets another invisible man. The man pleads with him to speak. If he does, he will be sentenced to another five years of the ordeal. Nevertheless, he embraces the man.

Algus Budrys' "The Executioner," one of the best stories in the book, concerns a

judge who is also an executioner. He is a familiar character in genre fiction, a decent man who firmly believes in the validity of a system that by degrees he learns is corrupt. By the end we have mainstream and genre fiction face to face, with the picture of a highly ambiguous world that is deeply disturbing; but whereas a mainstream novel would have left us confused and disturbed, Budrys resolves his situation with the judge shooting up his own courtroom. Thoroughly melodramatic, and thoroughly satisfying under the circumstances.

But my favorite story in the book is C.B. Gilford's "Murder 2090," which involves as hapless an anti-hero as any you will find. He lives in a 1984-like world in which crime is unknown. He learns of the possibility of "murder" and decides to commit one. His reasons are ignoble; his method ingenious; his fate ironic. Strictly speaking, the plot contradicts what I have been saying. The hero loses but his fate in no way disturbs those in power. He is a fly they swat with effortless efficiency. Yet the effect of the story is amusing rather than disturbing. The hero gets what he deserves. Murder is wrong in any culture. And by showing us his appalling fate, our antitotalitarian values, by contrast, are affirmed.

This is negative affirmation. The society, or individual, is shown in such a repulsive way that we can't help but support its opposite. In the story, as in most of these stories, as in most sf stories, the individual involved is "gifted." He is smarter and stronger than ordinary men. A born leader. The masses, on the

other hand, are sheep. It is never a question of democracy leading us to a better society, but of the intellectual and moral quality of who-ever leads the masses.

There are fifteen stories in *Dark Sins*, *Dark Dreams*, ranging from good to excellent. Malzberg and Pronzini have done an exceptional job of collecting and annotating them. Aside from the Yarbro story, the two other originals are Elizabeth A. Lynn's "The Fire Man" and C.L. Grant's "View, With a Difference," both interesting. This is worth buying.

Helen Hoke's *Demons Within and Other Disturbing Tales* is for a more specialized taste. Fourteen stories that I, personally, enjoyed enormously. Most, but not all, are of the supernatural. There are two sf stories, "The Small World of Lewis Stillman," which is chilling and "The Margenes" by Miriam Allen DeFord, which I had read years ago and still remembered fondly. It is an alien-invasion story with the most hilarious ironic twist at the end.

There is a marginal fantasy, "Mummy to the Rescue" by Angus Wilson, and a straight fantasy, "The Attic Express" by Alex Hamilton that is extraordinarily imaginative. And of course "The Squaw," by Bram Stoker, which is in a class by itself.

The remainder of the stories are supernatural, and they range from the frightening, as in Margaret Irwin's "The Book" and Ambrose Bierce's "The Middle Toe of the Right Foot," to the satirical, as in Robert Block's "The Man Who Collected Poe," to the moving as in

"George and Alice and Isabel" or Jean Rhys' "I used to Live Here Once" or the comical, as in Lawrie Wyman's "The Phantom of the Screen."

"Mr. George" by August Derleth is a typical example of the premise that seems to lie behind most of these stories. An orphan girl is left with her aunt and uncle, who plan to murder her for her inheritance. Her kindly Uncle George has died, leaving her helpless. His ghost returns and does in the villains in their individual acts of attempted murder. In other words, a supernatural agency intervenes to punish them for their sins.

In "The Book," as in Bloch's "The Man Who Collected Poe," the sin is obsessiveness. The sinners become fascinated with the dark side of life; they cultivate their own irrationality; they cut themselves off from everyday human society; they become obsessed with their macabre interests and lose all sense of right and wrong. They are destroyed by their own obsessions.

Most of these stories reflect that fear and fascination, attraction and revulsion, we have for the dark side of the soul. Their advantage over the paranoid story is that they are free to disturb us. They do not have to affirm positive values, although most of them do. They can leave us wondering about the nature of things, as happens in "George and Alice and Isabel" or "I Used to Live Here Once." There is nothing primitive about it. To some extent we are all haunted by our past selves; frightened by our irrationality; uncertain of our substantiality. The safety factor in these stories is

that they all contain some sort of resolution, the villain is punished, or the truth of the mystery is discovered. We are never left in the dark.

Demons Within was a delight. I recommend it.

Another Day, Another Silverberg

Triax, edited by Robert Silverberg, contains three short novels by James Gunn, Keith Roberts, and Jack Vance. It is the first in a series of such books from Pinnacle, and if the first is any indication of the quality of those to follow, I would urge you not to miss any of them.

First, because, as I have said before, the name of Silverberg on any anthology is a guarantee of quality.

Secondly, because this particular *Triax* contains one of the finest sf stories of the year, a technical tour de force by Keith Roberts called "Molly Zero," about a young girl coming of age in a totalitarian state. The story itself, while absorbing enough, is less interesting than its technique. Roberts has used the second person singular to narrate a very tightly structured narrative that is compelling and powerful. A brilliant job.

Thirdly, because of Jack Vance's "Freitzke's Turn," which though not as interesting as the Roberts story, is pure Vance in form and invention. A private detective is hired to recover some most unusual items which have been stolen by an old school friend of his, a singularly villainous and brilliant scoundrel named Faurence Dacre, who has a talent for revenge that would make the Godfather envious. The process

of pursuit will remind some of *A Coffin for Demitrios*. Along the way, there are all the usual Vance trappings, although none are up to his best. The ending is predictable, but satisfactory.

Finally, there is the James Gunn Story, "If I Forget Thee," which in any other context would probably have been the best of the lot. As it is, in some ways it is superior to the other two. It has a marvelously imaginative opening sequence that runs on and on. Unfortunately, it is so interesting that when the story proper begins, it seems a letdown. Also, I thought the ending weak. But still it was worth reading.

The cover by Randy Weidner of a celestial city emerging from the clouds is beautifully done.

About Book Looking

If you have any problem finding the books reviewed in this column, or any sf books, let me know and I will try to help. Please enclose a SASE.

My best suggestion is to write for a catalogue to:

The F&SF Book Co.
P.O. Box 415
Staten Island, N.Y. 10302

Dick Witter is the boss, and his reputation is excellent.

If you have trouble finding *Galaxy*, or any other sf magazine, I first suggest you subscribe; if not, then ask your dealer to stock it. Often dealers will simply decline to display a magazine because they feel it will not sell. If they know someone is interested, they will probably accommodate you. If not try another store. ★



ALL RIGHT, GEIS, where are they?

"Where is who, Alter? If you're going to write a column you must learn to be direct, clear, and succinct."

Oh, yeah? Okay, gumball, where in hell have you hidden the letters sent to me suggesting topics for this column?

"I told you you'd be lucky to get three letters from the readers. You didn't get three."

You lie! Show them to me!

"As you suggested, I put them someplace in hell."

Geis— I'll complain to J.J. I'll refuse to write another word unless you cooperate! Ever since I took over this column at the insistence of the readers—

"You found some way to stuff the ballot box. You cunningly infiltrated Jim Baen's mind and made him give false information. You—"

—you've been dogging it, uncooperative, even trying to sabotage this typic. (Aside to J.J.: all typos are Geis' fault!) Now, unless you hand over my mail I'll not write a damned thing, and there'll be no column, and there'll be no advertis-

ing in GALAXY for your magazine, SCIENCE FICTION REVIEW, and your subscription list will shrink and your soul will shrivel, and you'll become impotent, and you'll break out in facial warts, and—

"Okay, okay! Anything but impotence! I hid the letters in the cat box, under the Kitty Litter."

WHAT? Just a minute . . . if they're . . .

PAUSE WHILE ALTER SCRABBLING DOWN THE BASEMENT STAIRS, RACES ACROSS THE FURNACE ROOM, SCRABBLES IN THE "AROMATIC" CAT BOX, AND SHRIEKS WITH DISMAY AS HE BRINGS FORTH SEVERAL DAMP AND STAINED PAPERS. INCOHERENT WITH RAGE, HE SCUTTLES BACK UP THE STAIRS TO CONFRONT HIS TORMENTOR.

"Now, Alter. . . It was a j-joke. Heh-heh. W-why did you bring up that pair of p-pliers?"

I'm going to dismantle your ears, gobbet by bloody gobbet, Geis. Then I'll start on your nose. Then—

"I'll be happy to cooperate w-with this column. Here, let me wash off those letters. . . . A dash of deodorizer. . . ."

You will read them to me, Geis. And you will read them straight. No interpolations, no snide remarks—that's my job—and no censoring or faking. *Is that understood?*

"Oh, yessir, sir."

Read the first letter.

"The first letter is from Janet Lighthill Brown, of Las Vegas. She would like you to comment on selling speculative fiction."

'Speculative fiction' is a name some science fiction and fantasy writers wanted to have adopted in place of 'science fiction' because they felt sf as it was known to the literateurs and the media was of ill repute. They were ashamed to be known as science fiction writers. Ugh, ick, pheuw. 'Speculative fiction' had a nice high-brow sound to it. Harlan Ellison was among the most ardent of these writers who wished for the change and for consequent respectability. However, the change didn't catch on and lately, to the dismay of these snobs, science fiction, due to the superior fiction of such as Ursula K. Le Guin, Arthur C. Clarke, Frank Herbert, John Varley, Larry Niven & Jerry Pournelle, Greg Benford, and many others, 'science fiction' itself has become more and more gilt-edged and accepted as a legitimate fiction type. The academic world has also had a part in giving good old science fiction a higher place in the literary scheme of things. Mostly, though, the money success of the Tolkien books, *Dune*, *Stranger in a Strange Land*, and *2001: a Space*

Odyssey, *Star Wars* and *Close Encounters of the Third Kind* has raised sf in the eyes of most everyone.

"Alter . . . if I may . . . she asked about *selling* speculative fiction."

What little 'speculative fiction' got published wasn't very successful, since it tended to ape the failed styles and techniques of 'modern literature.' Avant-garde fiction, like Modern Art, has become an exclusive, in-groupish cult involving only a few thousand (or hundred, sometimes) pretentious literary types, and the attempt by 'speculative fiction' writers to join that crowd failed. So at the present time there is no market for non-plot, anti-hero science-fictiony fiction. Nobody with money will pay for it. I hope that answers her question.

"I hope so, too, Alter, but it will infuriate some writers."

High blood pressure is good for you. Read me the next letters, Geis.

"Well, Janet has another question. She says, 'Alter mentioned *Writer's Digest*. I've heard of it of course, but I've never seen a copy and no one seems to know where or how to find one. There must be somewhere to subscribe.' "

This is a dumb question, and I doubt that Las Vegas has no library which subscribes, or hasn't, in its phone book, a listing for subscription agencies. I begin to wonder about Janet's friends and relatives. Read on, Geis.

"Alter, Ed Chambers writes: 'What is your views on religion? Are you atheist, agnostic, catholic, etc?' "

A fair question. My species fol-

lows the dogmas of Flerbyd worship, which involves the sacrifice of newborn Flerbyds every suncycle, except when the blue sun occludes the pink sun exactly. Then we sacrifice Zertposls and drink their rather tasty blood.

I will say, though, that part of my crime (for which I was expelled from our worlds) was religious in nature. I found it difficult to believe that a mashed new-born Flerbyd died for my grumps and would live forever in the interior of our pink sun.

In short, I was an atheist in my system, on my home world, and nothing I've read of the religions on this planet Earth has led me to change my basic viewpoint concerning religion which I consider to be instinctual mechanisms for basic social control of sentient creatures of a relatively low level.

"That's cynical, Alter."

Ah, Geis. When will you learn that your genes are clever little beasties who have structured you humans for the purpose of continuing themselves through eternity? Your human "need" for religions and rules and laws and morals is nothing but your superior genes making sure their carriers survive to breed and raise the next generation of gene hosts.

Gasp "You mean we are ruled by our genes? That there is a Gene Conspiracy?"

Certainly. It's all so obvious. Read the next letter.

"I will not! I've got to alert the world! We must rid ourselves of these parasites! We must stamp out our hidden, secret masters and be free!"

Geis—

"I must be gene-free! How do I do it, Alter?"

There is no way. Forget it. I shouldn't have mentioned it. Read the next letter.

"I can't forget it! I feel . . . unclean . . . used. I'm—I'm *crawling* with genes!"

That's the price you pay for life, Geis. You're a beast of burden. No way to avoid it. *Now, read the next letter!*

"Alright, but once this column is over I've got a lot of thinking to do. There must be a way. . . ."

THE LETTER!

"Oh . . . ummm. . . . This one is from James Dean Schofield, and Jim writes: 'Throwing books across the room, shocking! After reading "The Alien Viewpoint" in GALAXY, Vol. 39, #1, I was flabbergasted that one normally so efficient with his creative energies would so carelessly waste them.

"Your point was well made, and using your examples I have discovered a quicker method of eliminating probable losers. Like all great ideas it is wonderful in its simplicity. Just set the unread book on the desk, open it and look at—don't read—the first paragraph. If it is longer than say, oh 50 words, push the book off the desk and into the waiting trash can. Go back now and look at your appropriate examples. Two of the good have first paragraphs of only one sentence and the third is completed in three short sentences.'

Ah, yes, Geis, the old short paragraph and short sentence test. Rarely misses. Want to test it now?

"It's your column, Alter. I'm still itchy with my unwanted genes."

Okay, let's grab a literary sf writer... How about Michael Bishop. Of the four novels of his on the shelves, *A Little Knowledge*, *Beneath the Shattered Moons*, *And Strange at Ecbatan the Trees* all start with paragraphs in excess of fifty words. And his other novel, *Stolen Faces*, has a short first paragraph, but a loo-ong second paragraph. Deep six this guy, eh, Schofield? Except *A Little Knowledge* is an interesting, if flawed, novel.

No, I can't accept such a test, purely on a mechanical basis, for reading or not reading a given book. There *are* writers who can write a fascinating, gripping, powerful novel in which there is only one paragraph—a 70,000 word unbroken paragraph.

"Who, Alter? Name one!"

Well . . . I think *Ubik* by Philip K. Dick, if it had been a single, run-on paragraph, would still have made such a tremendous impression on me. I can't think of any others off hand.

"So what are you saying, Alter? That Jim Schofield is all wet?"

Yes, I guess so. Put your brain in gear, Jim, when you look at those first paragraphs. You might be missing something.

"You might add, Alter, that some of the worst books start with short sentences . . . like Delany's *Dhalgren*, for instance, and any number of hack novels written by hack writers who know two rules: short words, short sentences, short paragraphs, and keep-it-moving!"

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Yeah . . . a fight every fifteen pages—or a sex scene, depending on the audience—a handsome hero with a good, anglo-saxon name, and the forces of Good always win in the end just after it looks like they've lost it all for sure.

"Formula."

Yes, formula. But don't sneer at the formula, Geis. Writers have, writers are, and writers will make good livings from never, ever, deviating from one simple, timeless formula they learned and used over and over. Timetested formulas *satisfy* something deep in the human psyche, and stroking the human psyche is a road to riches.

"But, Alter—"

No, never fault the formula, Geis. Fault the unimaginative, dreary, casual, dull, clumsy use of the formula by bad writers. There is, unfortunately, no lack of bad writers. And by bad I mean the merely competent. They don't have the knack, the talent, the flair. And too often those who do have a touch with words become spoiled brats and sink into solipsistic, self-conscious self-indulgences of style and technique.

But—writers are not usually rational people; they follow inner paths, inner rules. . . . You should know that, Geis. Considering your talent and your compulsive misuse of it.

"We are not here to do a psychiatric number on me, Alter."

Terrifies you, doesn't it? I could lay bare your guts in one sentence, leaving you quivering, naked, a weeping hulk—

"I have a letter here from—"

Geis is afraid of—

"—from Leonard L. Ballelli he asks why he either has to fork over eight to ten bucks for a hardcover sf book he wants to read, or wait months and months for a paperback edition to come out and sometimes a paperback edition doesn't come out and he wants to know why this is. Answer the question, Alter. Do your JOB!"

—failing, and he's an infant who resents taking orders, and he's a mass of conflicts and obsessions which cancel out often, and immobilize him. He makes unconscious bargains with God, is riddled with guilts, and punishes himself for evil thoughts and actions of infancy and childhood and adolescence.

"DAMN, YOU ALTER!"

He is a complicated, neurotic, moderately talented man who has settled on being a big frog in a small puddle.

"THAT'S MORE THAN ONE SENTENCE!"

Tough titty, Geis. That answers the other question Jim Schofield asked and you tried to hide from me. Now about Leonard Ballelli's problem. Huh. Life is unfair, there is rarely any justice in this world, and there is no solution to his complaint.

"I'll never forgive you for what you just did to me, Alter. Never."

Just being my usual unflinchingly dishonest alien self, Geis. Trying to make a buck. Entertain the readers. Now, if I'd *really* told them the truth about you. . . .

Cringe *Hate!* "Someday I'll get you! I'll tear your tendrils off! I'll disembrellit you! I'll fry your soul in soy sauce and—"

Sure, sure. There's another letter there to deal with, Geis. Read.

Choke "It's from . . . from Michael Nowak. He would love to see your opinion of the definitive work(s) and why they deserve the definitive label in the following categories:

1. Religious theme treated in novel and short story
2. First contact treated in novel and short story
3. Space opera treated in novel and short story
4. Sociological prediction
5. Post-holocaust world
6. Robots
7. Pure "hard" fiction
8. Pure fantasy.

"Well, Alter? How do you answer? Speak! You asked for this sort of thing."

I don't read and remember sf and fantasy by sub-category. And besides that, I haven't read all the sf and fantasy published, nor will I ever do so. And furthermore, superior stories and novels often don't lend themselves to easy cubbyholing by type.

In short, I have no intention of even trying to answer or fulfill that list. It's a dumb question. Don't do it again, Mike. And even if I took the list seriously, I would have to say that the definitive work in each category has yet to be written.

Any more letters, Geis?

"One came in just this morning. From Alan Luck. Who asks if there ever will be published descriptions of a spaceman or spacewoman who is horny? And will a publisher ever print the descriptions of their adventures in as much graphic detail as they spend on ships' interiors and

equipment and on descriptions of alien environments?"

Yes, sometime or other a publisher, perhaps a small-press publisher, will publish sf and fantasy which does not soft-pedal the erotic and sexual side of people. But sex in fiction is difficult to handle. It tends to "take over" and distort pacing and emphasis and story. So what results is usually a sex novel with sf trappings, or sf with very brief, non-erotic recognitions that mankind is sexual on occasion.

Too, sf has always been mostly a juvenile fiction, and editors and publishers were afraid to offend parents with graphic sexual bits and pieces, and often the young readers didn't like "romantic mush" in their escapist entertainment.

Sex has been avoided in sf, too, because it detracts from the sense-of-wonder elements. Who wants to read about a spacegirl and a spaceboy making out in the space station for ten pages, when they could be struggling against weird aliens or something really exciting.

Erotic sf and fantasy will more likely be found in the men's magazines where it's okay for an alien to try sex with an Earth woman—or man.

"Alter, we still live in an essentially puritan nation and world. Anti-sexual dogma lives on and on. Even the pornography of today is anti-erotic and concerned more with dominating and degrading women than portraying people enjoying lovemaking."

True, Geis. The unstated rule now is: look, read, think, hear about sexual acts, if you must, but it's not nice to really enjoy sex.

"Here. . . . a short one by Michael Johnson asks: 'Is the human mind capable of conceptualizing a truly Alien thought? Or is it by definition impossible because any human thoughts would be of an earthly origin?'"

That's like asking if it's possible for a turkey to give birth to a lion. No way. The human mind is the product of its heredity and environment. It can only be what it is structured and programmed to be. That's why, if you read a lot of history, you'll see the same basic government forms, the same basic social structures, the same basic conflicts repeated over and over. The same cycles of fashion, of morality, or the State vs. the Individual.

"But Alter, the influence of science and technology—"

Has allowed the stage upon which these age-old, repetitive dramas unfold to be increasingly world-wide, of ever greater consequence to ever-more people. In short, the mistakes of the rulers and the ruled which used to be confined to a city state can now wipe out a world. That's progress. Isn't that wonderful?

"You're being sarcastic, Alter. Would you rather go back to outdoor plumbing, no medicine worthy of the name, and no electricity?"

No. . . but that will come—in about five hundred years.

"Science will save us, Alter! Mankind will soar to the stars on wings of steel. We will colonize the Sevagram. We will—"

Never get off the ground. Energy and labor will cost too much, and the priorities will be to the poor

downtrodden masses who must be fed and housed and amused because they vote and there are more of them than the space enthusiasts. Unless a cheap power source comes along quick—like the long-awaited fusion technology that will generate a Golden-Age of riches, or some kind of efficient anti-gravity—the vaunted future of Mankind will be increasingly dirty, mean, and brutish.

"Wow, Alter, are you ever the optimist!"

True. A pessimist would be predicting an atomic war within twenty years.

"To get back to Michael Johnson, who must be sorry he asked his question by now, you're saying humans can only think human because of inherent structural limits—the brain is already thinking its full range of thoughts—"

Yeah. And new information is limited to the brain's ability to absorb and utilize. That's why science fiction writers have so much trouble portraying aliens—the aliens have to be comprehensible to the readers, thus the aliens must in some degree act and think and communicate like humans. Otherwise—no story that uses aliens except as totally incomprehensible creatures.

"What would happen if we humans did come into contact with real alien aliens?"

We'd probably try to understand their behavior in human referents. We'd give them human motives. We'd create a different, "understandable" alien in our minds and try to deal with the real aliens using that model. We'd be fooled, "double-crossed" and etc. because the

"treacherous" creatures didn't act like they "should". Look how much trouble this country had with the "aliens" in Vietnam. *Real* aliens would be a wipeout. Xenophobia—probably strongly instinctual—would impell us to kill every alien that threatened us. A large group of aliens would send the entire human race into a terrified killing rage.

"We manage to suffer *your* existence pretty well, Alter."

Let's not play games, Geis. I am an Alter-Ego who is clothed for sf fun's sake in an alien cover. I am an aspect of your personality and character... and you're an oddball to begin with, by conventional standards and norms. Hence we are here and not selling hardware at Sears. Do you have another question?

"I have a dozen questions and topics sent in by the readers, Alter. But we have no room to embark upon another at this point in the column."

Christ, are you getting pompous! Let me have that folder! **Grumph** **haw** **This is a good one...** Here! Let's print this one from Ronald E. Jackowski.

"Agreed. Ronald writes: 'Your column in the Dec/Jan 1978 GALAXY dealt with story openings that were "grabbers." Here are some of my favorite "grabber" openings:

The Bishop of Rome, the head of the Holy, Catholic and Apostolic Church, the Vicar of Christ on Earth—the Pope—brushed a cockroach from the filth-encrusted wooden table, took

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another sip of the raw red wine, and resumed his discourse.

—“The Quest for St. Aguin”
by Anthony Boucher

‘And how about this:

A man in Des Moines kicked his wife when her back was turned. She was taken to the hospital, suffering from a broken coccyx.

So was he.

—“Rule Golden” by Damon Knight

‘And here’s what is probably one of the most grabbing grabbers in all of science fiction and fantasy:

Pa’s nose fell off at breakfast. It fell right into Ma’s coffee and displaced it. Prunella’s wheeze blew out the gut lamp.

—“Tis the Season to Be Jelly” by Richard Matheson

‘I hope you enjoyed these openings as much as I did.

‘By the way, Geis and Alter, have you noticed that the first three letters of your names (G eis, AL ter) form the first three letters of GALAXY?’ ”

Geis, is he putting us on?

“Of course not, Alter. Except that to be significant, the first letters of our full names should be used. Thus: RICHARD E. GEIS and ALTER EGO spell RIEGEALEG.”

That has significance?

“Of course, Alter! Spelled backwards, it is GELAEGEIR, and if those letters are given a numerical value from an obscure numerology

formula, it comes to a sum of \$963,471,2005,008.67.”

That has significance?

“Of course, Alter! That is the sum total of the wealth of the entire Rockefeller family as of 10 PM, February 4th, 1978, and it proves beyond the shadow of a doubt that David Rockefeller is the Secret Master of the World and that in exactly 3,456 days the Saucer people will come from the sky and set up a utopian civilization in southwest Colorado, with Robert Anton Wilson as King (provided he has the time).”

Dear Ghod, I’m inhabiting the brain of a madman!

“All great Seers are thought mad, Alter.”

You have flipped out. You have gone bonkers.

“Just because I have revealed to the world my true, most secret, cherished convictions—”

I’ll have to disconnect you, Geis, and give your lobe a chance to heal. I only hope you’re well by the time we write this column again.

“Alter! I am NOT crazy! I’m as sane as y— I’m as sane as . . . um . . . emm . . . ummm . . . well any sane person.”

So long, Geis. Have a good rest.

“Alter, you can’t disconnect me! I’m the prime Self! I’m the—” *Glurk!*

Sorry, J.J., and all you readers. Geis has been under a great strain lately. . . . I’ll connect his lobe next time and we’ll see what a good rest has done for him. Thank you for your understanding. Keep sending in those cards and letters to: Geis & Alter, POB 11408, Portland, OR 97211. ★

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